Louisville Metro Air Pollution Control District
850 Barret Avenue
Louisville, Kentucky 40204-1745

Title V Operating Permit

Permit No.: 74-03-TV (R1) Plant ID: 0028

Effective Date: 9/25/2014 Expiration Date: 9/30/2019

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

Momentive Specialty Chemicals Inc.
6200 Campground Road
Louisville, KY 40216

The applicable procedures of District Regulation 2.16 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than eighteen (18) months and no later than six (6) months prior to the expiration date.

Permit Writer: Randy Schoenbaechler

Administratively Complete: 3/2/2002
Public Notice Date: 8/10/2014
Proposed Permit Date: 8/10/2014

Air Pollution Control Officer
October 02, 2014

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Title V Permit Revisions/Changes

Revision No.	Issue Date	Public Notice Date	Type	Page No.	Description
N/A	9/25/2014	8/10/2014	Initial	Entire Permit	Initial Permit Issuance
1	10/2/2014	N/A	Administrative	27, 29, 30, 44, 46, 47, 63, 64, 72, 73, 74, 85, 86, 91, 92, 93, 96, 97, 108, & 109	Increased frequency of TAC emission calculations to monthly from semiannually

Application #	Date	Type
61029, 61015, 61007, 60856	1/02/2002	Title V Initial Application
61030	3/29/2002	Title V Revised Application
40500	6/20/2012	Title V Revision Application to include the following Construction: 54-02-C, 55-02-C, 183-02-C, 15-03-C, 34-03-C, 74-03-C, 129-03-C, 256-03-C, 336-03-C, 191-05-C, 172-06-C, 173-06-C, 174-06-C, 175-06-C, 176-06-C, 177-06-C, 178-06-C, 354-07-C, 355-07-C, 357-07-C, 358-07-C, 359-07-C, 360-07-C, 361-07-C, 362-07-C (R1), 249-08-C, 502-08-C, 503-08-C, 570-08-C, 571-08-C, 66-09-C, 67-09-C, 29721-10-C, 29971-10-C, & 37374-13-C.
66166	7/25/2014	Title V Revised Application to include equipment from 15-03-C, to revise scrubber operating range, remove control requirement from Phenol weigh tank 66-09-C,

Abbreviations and Acronyms

AP-42	- AP-42, *Compilation of Air Pollutant Emission Factors,* published by USEPA
APCD	- Louisville Metro Air Pollution Control District
atm	- Atmosphere
BAC	- Benchmark Ambient Concentration
BACT	- Best Available Control Technology
Btu	- British thermal unit
CEMS	- Continuous Emission Monitoring System
CFR	- Code of Federal Regulations
CO	- Carbon monoxide
District	- Louisville Metro Air Pollution Control District
EA	- Environmental Acceptability
GHG	- Greenhouse Gas
HAP	- Hazardous Air Pollutant
hr	- Hour
IA	- Insignificant Activity
lb	- Pound
l	- Liter
LMAPCD	- Louisville Metro Air Pollution Control District
MACT	- Maximum Achievable Control Technology
MM	- Million
NAICS	- North American Industry Classification System
NMOC	- Non Methane Organic Compound
NSR	- New Source Review
NOx	- Nitrogen oxides
NSPS	- New Source Performance Standards
PM	- Particulate Matter
PM_{10}	- Particulate Matter less than 10 microns
ppm	- Parts per million
PSD	- Prevention of Significant Deterioration
PMP	- Preventive Maintenance Plan
psia	- Pounds per square inch absolute
RACT	- Reasonably Available Control Technology
SIC	- Standard Industrial Classification
SIP	- State Implementation Plan
SO_2	- Sulfur dioxide
STAR	- Strategic Toxic Air Reduction (Includes District Regulations 5.00, 5.01, 5.20, 5.21, 5.22, & 5.23)
TAC	- Toxic Air Contaminant
ton per year	- Tons per year
UTM	- Universal Transverse Mercator
VOC	- Volatile Organic Compound
VOM	- Volatile Organic Material
w.c.	- water column
year	- any period of twelve consecutive months, unless "calendar year" is specified
yr	- year, or any 12 consecutive-month period, as determined by context

Preamble

Title V of the Clean Air Act Amendments of 1990 (the Act) required EPA to create an operating permit program for implementation by state or local air permitting authorities. The purposes of this program are: (1) to require an affected company to assume full responsibility for demonstrating compliance with applicable regulations; (2) to capture all of the regulatory information pertaining to an affected company in a single document; and (3) to make permits more consistent with each other.

A company is subject to the Title V program if it meets any of several criteria related to the nature or amount of its emissions. The Title V operating permit specifies what the affected company is, how it may operate, what its applicable regulations are, how it will demonstrate compliance, and what is required if compliance is not achieved. In Jefferson County, Kentucky, the Louisville Metro Air Pollution Control District (LMAPCD or APCD) is responsible for issuing Title V permits to affected companies and enforcing local regulations and delegated federal and state regulations. EPA may enforce federal regulations but not "District Only Enforceable Regulations."

Title V offers the public an opportunity to review and comment on a company's draft permit. It is intended to help the public understand the company's compliance responsibility under the Clean Air Act. Additionally, the Title V process provides a mechanism to incorporate new applicable requirements. Such requirements are available to the public for review and comment before they are adopted.

Title V Permit General Conditions define requirements that are generally applicable to all Title V companies under the jurisdiction of LMAPCD. This avoids repeating these requirements in every section of the company's Title V permit. Company-specific conditions augment the General Conditions as necessary; these appear in the sections of the permit addressing individual emission units or emission points.

The General Conditions include references to regulatory requirements that may not currently apply to the company, but which provide guidance for potential changes at the company or in the regulations during the life of the permit. Such requirements may become applicable if the company makes certain modifications or a new applicable requirement is adopted.

When the applicability of a section or subpart of a regulation is unclear, a clarifying citation will be made in the company's Title V permit at the emission unit/point level. Comments may also be added at the emission unit/point level to give further clarification or explanation.

The owner or operator's Title V permit may include a current table of "insignificant activities."

Insignificant activities are defined in District Regulation 2.16 section 1.23, as of the date the permit was proposed for review by U.S. EPA, Region 4.

Insignificant activities identified in District Regulation 1.02, section 1.38, and Appendix A may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16 section 3.5.4.1.4.

Insignificant activities identified in District Regulation 1.02, section 1.38, and Appendix A shall comply with generally applicable requirements as required by Regulation 2.16 section 4.1.9.4.

General Conditions

1. **Compliance** - The owner or operator shall comply with all applicable requirements and with all terms and conditions of this permit. Any noncompliance shall constitute a violation of the Act, State, and District regulations and shall cause the source to be subject to enforcement actions including, but not limited to, the termination, revocation and reissuance, or revision of this permit, or denial of a permit application to renew this permit. Notwithstanding any other provision in the Jefferson County portion of the Kentucky SIP approved by EPA, any credible evidence may be used for the purpose of establishing whether the owner or operator is in compliance with, has violated, or is in violation of any such plan. [Regulation 2.16, sections 4.1.3, 4.1.13.1, and 4.1.13.7]

2. **Compliance Certification** - The owner or operator shall certify, annually, or more frequently if required in applicable regulations, compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall meet the requirements of Regulation 2.16, sections 3.5.11 and 4.3.5. The owner or operator shall submit the annual compliance certification (Form 9400-O) directly to the EPA and to the District, as set forth in Regulation 2.16, section 4.3.5.4, at the following addresses:

US EPA - Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-8960

Air Pollution Control District
Room 205
850 Barret Ave
Louisville, KY 40204-1745

This certification must be postmarked by 15 April of the year following the year for which the certification is being submitted, or other such due date as required by another applicable regulation.

3. **Compliance Schedule** - The owner or operator shall submit a schedule of compliance for each emission unit that is not in compliance with all applicable requirements. A compliance schedule must meet the requirements of Regulation 2.16, section 3.5.9.5. A schedule of compliance shall be supplemental to, and shall not condone noncompliance with, the applicable requirements on which it is based. For each schedule of compliance, the owner or operator shall submit certified progress reports at least semi-annually, or at a more frequent period if specified in an applicable requirement or by the District in accordance with Regulation 2.16 section 4.3.4. The progress reports shall contain:

   a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when activities, milestones, or compliance were achieved.

   b. An explanation of why dates in the schedule of compliance were not or will not be met, and preventive or corrective measures adopted.

4. **Duty to Supplement or Correct Application** - If the owner or operator fails to submit relevant facts or has submitted incorrect information in the permit application, they shall, upon discovery of the occurrence, promptly submit the supplementary facts or corrected information in accordance with Regulation 2.16, section 3.4.

5. 5. **Emergency Provision**

   a. An emergency shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emission limitations if the conditions in Regulation 2.16 are met. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

      i. An emergency occurred and that the owner or operator can identify the cause of the emergency;

      ii. The permitted facility was at the time being properly operated;

      iii. During the period of the emergency the owner or operator expeditiously took all reasonable steps, consistent with safe operating practices, to minimize levels of emissions that exceeded the emission standards or other requirements in this permit; and

iv. The owner or operator submitted notice meeting the requirements of Regulation 1.07 of the time when emissions limitations were exceeded because of the emergency. This notice must fulfill the requirement of this condition, and must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.

b. In an enforcement proceeding, the owner or operator seeking to establish the occurrence of an emergency has the burden of proof.

c. This condition is in addition to any emergency or upset provision contained in an applicable requirement. [Regulation 2.16, sections 4.7.1 through 4.7.4]

6. **Emission Fees Payment Requirements** - The owner or operator shall pay annual emission fees in accordance with Regulation 2.08, section 1.3. Failure to pay the emissions fees when due shall constitute a violation of District Regulations. Such failure is subject to penalties and an increase in the fee of an additional 5% per month up to a maximum of 25% of the original amount due. In addition, failure to pay emissions fees within 60 days of the due date shall automatically suspend this permit to operate until the fee is paid or a schedule for payment acceptable to the District has been established. [Regulation 2.08, section 1.6]

7. **Emission Offset Requirements** - The owner or operator shall comply with the requirements of Regulation 2.04.

8. **Enforceability Requirements** - Except for the conditions that are specifically designated as "District-Only Enforceable Conditions", all terms and conditions of this permit, including any provisions designed to limit a source's potential to emit, are enforceable by EPA and citizens as specified under the Act. [Regulation 2.16, sections 4.2.1 and 4.2.2]

9. **Enforcement Action Defense**

a. It shall not be a defense for the owner or operator in an enforcement action that it would have been necessary for the owner or operator to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

b. The owner or operator's failure to halt or reduce activity may be a mitigating factor in assessing penalties for noncompliance if the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operation. [Regulation 2.16, sections 4.1.13.2 and 4.1.13.3]

10. **Hazardous Air Pollutants and Sources Categories** - The owner or operator shall comply with the applicable requirements of Regulations 5.02 and 5.14.

11. **Information Requests** - The owner or operator shall furnish to the District, within a reasonable time, information requested in writing by the District, to determine whether cause exists for revising, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The owner or operator shall also furnish, upon request, copies of records required to be kept by this permit.
[Regulation 2.16, section 4.1.13.6]

If information is submitted to the District under a claim of confidentiality, the source shall submit a copy of the confidential information directly to EPA at the address shown in General Condition 35.b.
[Regulation 2.07, section 10.2]

12. **Insignificant Activities** - The owner or operator shall:

a. Notify the District in a timely manner of any proposed change to an insignificant activity that would require a permit revision. [Regulation 2.16, section 5]

b. Submit a current list of insignificant activities by April 15 of each year with the annual compliance certification, including an identification of the additions and removals of insignificant activities that occurred during the preceding year. [Regulation 2.16, section 4.3.5.3.6]

13. **Inspection and Entry** - Upon presentation of credentials and other documents as required by law, the owner or operator shall allow the District or an authorized representative to perform the following during reasonable hours:
[Regulation 2.16, section 4.3.2]

a. Enter the premises to inspect any emissions-related activity or records required in this permit.

b. Have access to and copy records required by this permit.

c. Inspect facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required by this permit.

d. Sample or monitor substances or parameters to assure compliance with this permit or any applicable requirements.

14. **Monitoring and Related Record Keeping and Reporting Requirement** - The owner or operator shall comply with the requirements of Regulation 2.16, section 4.1.9. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month. The owner or operator shall submit all required monitoring reports at least once every six months, unless more frequent reporting is required by an applicable requirement. The reporting period shall be 1 January through 30 June and 1 July through 31 December of each calendar year. All reports shall be sent to the District at the address shown in paragraph 2 of these General Conditions and must be postmarked by the 60th day following the end of each reporting period, unless specified elsewhere in this permit. If surrogate operating parameters are monitored and recorded in lieu of emission monitoring, then an exceedance of multiple parameters may be deemed a single violation by the District for enforcement purposes. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All semi-annual compliance reports shall include the statement "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete" and the signature and title of a responsible official of the company.

The semi-annual compliance reports are due on or before the following dates of each calendar year:

Reporting Period	Report Due Date
January 1 - June 30	August 29
July 1 - December 31	March 1 of the following year

If a change in the responsible official (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of such change or addition.

15. **Off-permit Documents** - Any applicable requirements, including emission limitations, control technology requirements, or work practice standards, contained in an off-permit document cannot be changed without undergoing the permit revision procedures in Regulation 2.16, section 5.
[Regulation 2.16, section 4.1.5]

16. **Operational Flexibility** - The owner or operator may make changes without permit revision in accordance with Regulation 2.16, section 5.8.

17. **Permit Amendments (Administrative)** - This permit can be administratively amended by the District in accordance with Regulation 2.16, section 5.4.

18. **Permit Application Submittal** - The owner or operator shall submit a timely and complete application for permit renewal or significant revision. If the owner or operator submits a timely and complete application then the owner or operator's failure to have a permit is not a violation until the District takes formal action on this permit application. This protection shall cease to apply if, subsequent to completeness determination, the owner or operator fails to submit, by the deadline specified in writing by the District, additional information required to process the application as required by Regulation 2.16, sections 3 and 5.2.

19. **Permit Duration** - This permit is issued for a fixed term of 5 years, in accordance with Regulation 2.16, section 4.1.8.3.

20. **Permit Renewal, Expiration and Application** - Permit renewal, expiration and application procedural requirements shall be in accordance with Regulation 2.16, sections 4.1.8.2 and 5.3. This permit may only be renewed in accordance with section 5.3.

21. **Permit Revisions** - No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit. [Regulation 2.16, section 4.1.16]

22. **Permit Revision Procedures (Minor)** - Except as provided in 40 CFR Part 72, the Acid Rain Program, this permit may be revised in accordance with Regulation 2.16, section 5.5.

23. **Permit Revision Procedures (Significant)** - A source seeking to make a significant permit revision shall meet all the Title V requirements for permit applications, issuance and Permit renewal, in accordance with Regulation 2.16, section 5.7, and all other applicable District Regulations.

24. **Permit Termination and Revocation by the District** - The District may terminate this permit only upon written request of the owner or operator. The District may revoke a permit for cause, in accordance with Regulation 2.16, section 5.11.1 through 5.11.6. For purposes of section 5.11.1, substantial or unresolved noncompliance includes, but is not limited to:

    a. Knowingly operating process or air pollution control equipment in a manner not allowed by an applicable requirement or that results in excess emissions of a regulated air pollutant that would endanger the public or the environment;

    b. Failure or neglect to furnish information, analyses, plans, or specifications required by the District;

    c. Knowingly making any false statement in any permit application;

    d. Noncompliance with Regulation 1.07, section 4.2; or

    e. Noncompliance with KRS Chapter 77.

25. **Permit Shield** - The permit shield shall apply in accordance with Regulation 2.16, section 4.6.1.

26. **Prevention of Significant Deterioration of Air Quality** - The owner or operator shall comply with the requirements of Regulation 2.05.

27. **Property Rights** - This permit shall not convey property rights of any sort or grant exclusive privileges in accordance with Regulation 2.16, section 4.1.13.5.

28. **Public Participation** - Except for modifications qualifying for administrative permit amendments or minor permit revision procedures, all permit proceedings shall meet the requirements of Regulations 2.07, section 1; and 2.16, sections 5.1.1.2 and 5.5.4.

29. **Reopening For Cause** - This permit shall be reopened and revised by the District in accordance with Regulation 2.16 section 5.9.

30. **Reopening for Cause by EPA** - This permit may be revised, revoked and reissued or terminated for cause by EPA in accordance with Regulation 2.16 section 5.10.

31. **Risk Management Plan (112(r))** - For each process subject to section 112(r) of the Act, the owner or operator shall comply with 40 CFR Part 68 and Regulation 5.15.

32. **Severability Clause** - The conditions of this permit are severable. Therefore, if any condition of this permit, or the application of any condition of this permit to any specific circumstance, is determined to be invalid, the application of the condition in question to other circumstances, as well as the remainder of this permit's conditions, shall not be affected. [Regulation 2.16, section 4.1.12]

33. **Stack Height Considerations** - The owner or operator shall comply with the requirements of Regulation 2.10.

34. **Startups, Shutdowns, and Upset Conditions Requirements** - The owner or operator shall comply with the requirements of Regulation 1.07.

35. **Submittal of Reports, Data, Notifications, and Applications**

    a. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit as set forth in Regulation 2.16 sections 3.1, 3.3, 3.4, 3.5, 4.1.13.6, 5.8.5 and 5.12 shall be submitted to:

Air Pollution Control District
Room #205
850 Barret Ave
Louisville, KY 40204-1745

b. Documents that are specifically required to be submitted to EPA, as set forth in Regulation 2.16 sections 3.3 and 5.8.5 shall be mailed to EPA at:

US EPA - Region IV
APTMD - 12th floor
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-3104

36. **Other Applicable Regulations** - The owner or operator shall comply with all applicable requirements of the following:

Regulation	Title
1.01	General Application of Regulations and Standards
1.02	Definitions
1.03	Abbreviations and Acronyms
1.04	Performance Tests
1.05	Compliance With Emissions Standards And Maintenance Requirements
1.06	Source Self-Monitoring, Emission Inventory Development and Reporting
1.07	Excess Emissions During Startups, Shutdowns, and Upset Conditions
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
2.01	General Application (Permit Requirements)
2.02	Air Pollution Regulation Requirements and Exemptions
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements
2.07	Public Notification for Title V, PSD, and Other Offset Permits; SIP Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Modification, Revocation, or Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
2.16	Title V Operating Permits
4.01	General Provisions for Emergency Episodes

Regulation	Title
4.02	Episode Criteria
4.03	General Abatement Requirements
4.07	Episode Reporting Requirements
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
6.01	General Provisions (Existing Affected Facilities)
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions (New Affected Facilities)
7.02	Adoption and Incorporation by Reference of Federal New Source Performance Standards

District Only Enforceable Regulations:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors
2.08	Emission Fee, Permit Fees and Permit Renewal Procedures
5.00	Definitions
5.01	General Provisions
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants

37. **Stratospheric Ozone Protection Requirements** - Any facility having refrigeration equipment, including air conditioning equipment, which uses a Class I or II substance (listed in 40 CFR 82, Subpart A, Appendices A and B), and any facility which maintains, services, or repairs motor vehicles using a Class I or II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts A, B, and F. Those requirements include the following restrictions:

a. Any facility having any refrigeration equipment that normally contains fifty (50) pounds of refrigerant or more must keep servicing records documenting the date and type of all service and the quantity of any refrigerant added, according to 40 CFR 82.166;

b. No person repairing or servicing a motor vehicle may perform any service on a motor vehicle air conditioner (MVAC) involving the refrigerant for such air conditioner unless the person has been properly trained and certified as provided in 40 CFR 82.34 and 40 CFR 82.40, and properly uses equipment approved according to 40 CFR 82.36 and 40 CFR 82.38, and complies with 40 CFR 82.42;

c. No person may sell or distribute, or offer for sale or distribution, any substance listed as a Class I or II substance in 40 CFR 82, Subpart A, Appendices A and B, except in compliance with 40 CFR 82.34(b), 40 CFR 82.42, and/or 40 CFR 82.166;

d. No person maintaining, servicing, repairing, or disposing of appliances may knowingly vent or otherwise release into the atmosphere any Class I or II substance used as a refrigerant in such equipment and no other person may open appliances (except MVACs as defined in 40 CFR 82.152) for service, maintenance, or repair unless the person has been properly trained and certified according to 40 CFR 82.161 and unless the person uses equipment certified for that type of appliance according to 40 CFR 82.158 and unless the person observes the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;

e. No person may dispose of appliances (except small appliances, as defined in 40 CFR 82.152) without using equipment certified for that type of appliance according to 40 CFR 82.158 and without observing the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;

f. No person may recover refrigerant from small appliances, MVACs and MVAC-like appliances (as defined in 40 CFR 82.152), except in compliance with the requirements of 40 CFR 82 Subpart F;

g. If the permittee manufactures, transforms, imports, or exports, a Class I or II substance (listed in 40 CFR 82, Subpart A, Appendices A and B), the permittee is subject to all requirements as specified in 40 CFR 82 Subpart A, Production and Consumption Controls.
[Regulation 2.16, section 4.1.5]

STAR Requirements

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.01	General Provisions	1 through 4
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

a. The owner or operator shall submit with the notification of construction for any new emission unit the STAR EA Demonstration for all Category 1 through Category 4 TACs emitted from that emission unit.

b. The owner or operator shall submit a plant-wide emissions-based EA Demonstration to the District showing compliance with the plant-wide EA goals of 7.5 for new and existing, 3.8 for all new combined, and 1.0 for each TAC from each process when a change occurs that increases emissions above de minimis or previously modeled values.

c. If the TAC does not have an established BAC or de minimis value, the owner or operator shall calculate and report these values. The form located on the APCD website (http://www.louisvilleky.gov/APCD) may be used for determining BAC and de minimis values.

Emission Unit UPW: Plant-Wide

Emission Unit Description: Plant-Wide conditions

UPW Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
2.05	Prevention of Significant Deterioration of Air Quality	1,2
7.25	Standard of Performance for New Sources Using Volatile Organic Materials	1 through 5

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	All
5.01	General Provisions	1 through 4
5.15	Chemical Accident Prevention Provisions	1
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

UPW Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. The owner or operator shall limit the plant-wide VOC emissions for all emission points to 70 tons or less per 12 consecutive month period, based on the BACT analysis dated September 26, 2005. The plant-wide limit includes all process equipment, storage tanks, loading racks, etc. that emit VOC. (Regulation 7.25, section 3.1) (See Comment 1)

ii. Regulation 7.25 shall also apply to all affected facilities, as defined in Regulation 6.24, that were constructed before June 13, 1979 in addition to all affected facilities constructed after this date. (Regulation 7.25, section 3.1) (See Comment 1)

iii. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 2.16, section 4.1.1)

iv. See Appendix B for to-date control device District accepted efficiencies and operating parameters. (Regulation 2.16, section 4.1.1)

b. **HAP**

i. The owner or operator shall limit plant-wide single HAP emissions to less than 10 tons per 12 consecutive month period. (Board Order Agreement 2142) (See Comment 2)

ii. The owner or operator shall limit plant-wide total HAP emissions to less than 25 tons per 12 consecutive month period. (Board Order Agreement 2142) (See Comment 2)

iii. See Appendix B for to-date control device District accepted efficiencies and operating parameters. (Regulation 2.16, section 4.1.1)

c. **TAC**

i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis. (Regulations 5.00 and 5.21) (See Comments 3 and 5)

ii. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 5.21, section 4.3)

iii. See Appendix B for to-date control device District accepted efficiencies and operating parameters. (Regulation 2.16, section 4.1.1)

d. **PM_{10}**

i. The owner or operator shall limit the plant-wide emissions of PM_{10} to less than 100 tons per 12 consecutive month period. (Board Order Agreement 2142) (See Comment 2)

ii. See Appendix B for to-date control device District accepted efficiencies and operating parameters. (Regulation 2.16, section 4.1.1)

e. **CO**

The owner or operator shall limit the plant-wide emissions of CO to less than 100 tons per 12 consecutive month period. (Board Order Agreement 2142) (See Comment 2)

f. **NO_X**

The owner or operator shall limit the plant-wide emissions of NO_X to less than 100 tons per 12 consecutive month period. (Board Order Agreement 2142) (See Comment 2)

g. **SO_2**

The owner or operator shall limit the plant-wide emissions of SO_2 to less than 100 tons per 12 consecutive month period. (Board Order Agreement 2142) (See Comment 2)

h. **GHG**

The owner or operator shall limit the plant-wide emissions to less than 100,000 tons per 12 consecutive month period of CO_2e and 100 tons mass basis. (Regulation 2.05) (See Comment 4)

i. **112(r) Regulated Substances**

If a 112(r) regulated pollutant is present at the stationary source in an amount greater than the threshold quantity specified in Regulation 5.15, the owner or operator shall comply with the requirements specified in Regulation 5.15, including the requirement to submit a Risk Management Plan in a method and format as specified by the District and EPA. (Regulation 5.15)

S2. **Monitoring and Record Keeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request. Records shall include quantity and type of materials processed including recipes and batch information such as temperatures, pressures, and residence times adequate for calculation of emissions to demonstrate compliance with the conditions of this permit.

a. **VOC**

i. The owner or operator shall monthly calculate and record the monthly and 12 consecutive month total plant-wide VOC emissions from all emission points.

ii. The owner or operator shall keep the following records plant-wide concerning VOC control devices for the purpose of emissions calculations:

1) An identification of the control device to which the exhaust gases are ducted;

2) Date, time and calculated total duration for each day that the vent streams by-pass primary control and are vented to secondary controls;

3) Date, time and calculated total duration for each day that the vent streams by-pass primary control and secondary controls, or

4) Monthly a declaration that primary controls were used at all times.

b. **HAP**

The owner or operator shall monthly calculate and record the monthly and 12 consecutive month plant-wide single HAP emissions and the total HAP emissions.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis.

d. **PM_{10}**

The owner or operator shall monthly calculate and record the monthly and 12 consecutive month total plant-wide PM_{10} emissions from all emission points.

e. **CO**

The owner or operator shall monthly calculate and record the monthly and 12 consecutive month plant-wide CO emissions.

f. **NO_X**

The owner or operator shall monthly calculate and record the monthly and 12 consecutive month plant-wide NO_X emissions.

g. **SO_2**

The owner or operator shall monthly calculate and record the monthly and 12 consecutive month plant-wide SO_2 emissions.

h. **GHG**

The owner or operator shall monthly calculate and record the monthly and 12 consecutive month plant-wide CO2e emissions and the total GHG emissions on a mass basis.

i. **112(r) Regulated Substances**

If a 112(r) regulated pollutant is present at the stationary source in an amount greater than the threshold quantity specified in Regulation 5.15, the owner or operator shall monitor the processes and keep records as required by Regulation 5.15.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports covering the periods of January through June and July through December, unless otherwise noted. (See General Condition 14)

a. **VOC**

i. Total plant-wide monthly and 12 consecutive month VOC emissions for each month from all emission points combined,

ii. The monthly bypass hours for each month and the year to date total,

iii. Identification of all periods of exceedance of the VOC emission limits, and

iv. Description of any corrective action taken for each exceedance.

b. **HAP**

i. The combined plant-wide monthly and 12 consecutive month singe and total HAP emissions for each month,

ii. Identification of all periods of exceedance of the HAP emission limits, and

iii. Description of any corrective action taken for each exceedance.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze. (Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.ii.

d. **PM_{10}**

i. Total plant-wide monthly and 12 consecutive month PM_{10} emissions for each month from all emission points,

ii. Identification of all periods of exceedance of the PM_{10} emission limit, and

iii. Description of any corrective action taken for each exceedance.

e. **CO**

i. The plant-wide monthly and 12 consecutive month CO emissions for each month from all emission points,

ii. Identification of all periods of exceedance of the HAP emission limits, and

iii. Description of any corrective action taken for each exceedance.

f. **NO_X**

i. The plant-wide monthly and 12 consecutive month NO_X emissions for each month from all emission points,

ii. Identification of all periods of exceedance of the HAP emission limits, and

iii. Description of any corrective action taken for each exceedance.

g. **SO_2**

i. The plant-wide monthly and 12 consecutive month SO_2 emissions for each month from all emission points,

ii. Identification of all periods of exceedance of the HAP emission limits, and

iii. Description of any corrective action taken for each exceedance.

h. **GHG**

i. The plant-wide monthly and 12 consecutive month plant-wide CO_2e emissions and the total GHG emissions on a mass basis for each month,

ii. Identification of all periods of exceedance of the GHG emission limits, and

iii. Description of any corrective action taken for each exceedance.

i. **112(r) Regulated Substances**

If a 112(r) regulated pollutant is present at the stationary source in an amount greater than the threshold quantity specified in Regulation 5.15, the owner or operator shall comply with the reporting requirements specified in Regulation 5.15.

UPW Comments

1. The company agreed to the VOC BACT limit being Plant-Wide in a letter dated February 16, 2007. The Plant-Wide 70 ton per 12 consecutive months VOC BACT limit replaces the production limit of 35 million pounds per year for urethane resins from the liquid resin unit (LRU).
2. The Company agreed to maintain operations at a level of emissions below major source thresholds as part of Board Order Agreement 2142.
3. The TAC emissions from the combustion of natural gas are considered to be “de minimis emissions” by the District. This includes all of the emissions from a process or process equipment for which the only emissions are the products of combustion of natural gas, such as from a natural gas-fired boiler or turbine, but does not include the other emissions from a process or process equipment that are not the products of the combustion of natural gas. (Regulation 5.21, section 2.7)
4. Limits for GHG are stipulated in order to avoid the applicability of PSD conditions. GHG pollutants shown in the plant-wide PTE to be included in the mass basis limit and their corresponding current CO_2e GWP (Global Warming Potential) ratios are CO_2 (1), CH_4 (21), N_2O (310).

5. TAC limits are based on EA Demonstration submitted by the company and received by the District on 2/14/2014. The Tier 4 modeling conducted for indicates no predicted exceedances of the overall environmental acceptability goals in LMAPCD Regulation 5.21. Compliance with STAR has been demonstrated as follows:

		For Sections 3.1.1, 3.1.2, and 3.2			
		Industrial receptors		Non-Ind. receptors	
AMMONIA	Max Individual P/PE	R_{NC} = 0.002	EAG_{NC} = 3	R_{NC} = 0.001	EAG_{NC} = 1
SULFURIC ACID	Max Individual P/PE	R_{NC} = 0.068	EAG_{NC} = 3	R_{NC} = 0.007	EAG_{NC} = 1
CADMIUM	Max Individual P/PE	R_C = 0.161	EAG_C = 10	R_C = 0.054	EAG_C = 1
	Max Individual P/PE	R_{NC} = 0.005	EAG_{NC} = 3	R_{NC} = 0.002	EAG_{NC} = 1
	All P/PE	R_{NC} = 0.010	EAG_{NC} = 3	R_{NC} = 0.003	EAG_{NC} = 1
ARSENIC	Max Individual P/PE	R_C = 1.391	EAG_C = 10	R_C = 0.391	EAG_C = 1
	Max Individual P/PE	R_{NC} = 0.021	EAG_{NC} = 3	R_{NC} = 0.006	EAG_{NC} = 1
	All P/PE	R_{NC} = 0.043	EAG_{NC} = 3	R_{NC} = 0.012	EAG_{NC} = 1
NAPHTHALENE	Max Individual P/PE	R_C = 3.564	EAG_C = 10	R_C = 0.256	EAG_C = 1
	Max Individual P/PE	R_{NC} = 0.034	EAG_{NC} = 3	R_{NC} = 0.002	EAG_{NC} = 1
	All P/PE	R_{NC} = 0.082	EAG_{NC} = 3	R_{NC} = 0.008	EAG_{NC} = 1
BERYLLIUM	Max Individual P/PE	R_{NC} = 0.012	EAG_{NC} = 3	R_{NC} = 0.004	EAG_{NC} = 1
FORMALDEHYDE	Max Individual P/PE	R_C = 1.522	EAG_C = 10	R_C = 0.803	EAG_C = 1
	Max Individual P/PE	R_{NC} = 0.013	EAG_{NC} = 3	R_{NC} = 0.007	EAG_{NC} = 1
	All P/PE	R_{NC} = 0.154	EAG_{NC} = 3	R_{NC} = 0.051	EAG_{NC} = 1
		For Sections 3.1.3 and 3.2			
	Plant-wide Sum	All existing & new		All new P/PE	
	Industrial Total R_C	14.225	EAG_C = 75	2.016	EAG_C = 38
	Non-Ind. Total R_C	4.347	EAG_C = 7.5	0.65	EAG_C = 3.8

Emission Unit U1: Formaldehyde Production – Silver Process

Emission Unit Description: Manufacturing of formaldehyde by oxidation of methanol

U1 Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
6.07	Standards of Performance for Existing Indirect Heat Exchangers	1 through 4
6.13	Standard of Performance for Existing Storage Vessels for Volatile Organic Compounds	1 through 5
7.12	Standard of Performance for New Storage Vessels for Volatile Organic Compounds	1 through 5
7.22	Standard of Performance for New Volatile Organic Materials Loading Facilities	1 through 5
7.25	Standard of Performance for New Sources Using Volatile Organic Materials	1 through 5
40 CFR 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels	60.110 through 60.116
40 CFR 60 Subpart VV	Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006	40 CFR 60.480 through 40 CFR 60.489
40 CFR 60 Subpart III	Standards of Performance for Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	40 CFR 60.610 through 40 CFR 60.618
40 CFR 63 Subpart A	General Provisions	40 CFR 63.1 through 40 CFR 63.15
40 CFR 63 Subpart F	National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry	40 CFR 63.100, 40 CFR 63.101, 40 CFR 63.102, 40 CFR 63.103, 40 CFR 63.104, 40 CFR 63.105, 40 CFR 63.106
40 CFR 63 Subpart G	National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater	40 CFR 63.110 through 40 CFR 63.123, 40 CFR 63.126 through 40 CFR 63.149, 40 CFR 63.151, and 40 CFR 63.152
40 CFR 63 Subpart H	National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks.	40 CFR 63.160, 40 CFR 63.161, 40 CFR 63.162, 40 CFR 63.163, 40 CFR 63.168, 40 CFR 63.175, 40 CFR 63.176, 40 CFR 63.180, 40 CFR 63.181, 40 CFR 63.182

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	All
5.01	General Provisions	1 through 4
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	1 through 4
5.15	Chemical Accident Prevention Provisions	1
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
7.02	Adoption of Federal New Source Performance Standards	1 through 5

U1 Equipment:

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E1	Primary Absorber (C-001) 1970	STAR 5.15 7.25 40 CFR 60 Subparts VV & III 40 CFR 63 Subparts F, G, & H	C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E2	Secondary Absorber (C-002) 1970		C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E3	Distillation Column (C-003) 1970		C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E4	Purification Column (C-004) 1970		C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E5	Waste Heat Recovery Boiler (E-001) 1970	IA (See Comment 6)	C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E6	Methanol Process Condenser (E-004) 1970	STAR 5.15 7.25 40 CFR 60 Subparts VV & III 40 CFR 63 Subparts F, G, & H	C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E7	Air Heater Chest (E-010) 1970		C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E8	Methanol Feed Tank (V-001) 1970		C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E9	Raw Formaldehyde Feed Tank (V-004) 1970		C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E10	Product Accumulator (V-005) 1970		C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E11	Reflux Accumulator (V-006) 1970		C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E12	Oxalic Acid Tank (V-012) 1970	STAR 7.25	NA	S7
E13.1 through E13.60	Reactors (60) 1970	STAR 5.15 7.25 40 CFR 60 Subparts VV & III 40 CFR 63 Subparts F, G, & H	C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E18	Silver Plant Boiler 12.6 MMBtu/hr (H-001) 1970	STAR 6.07	NA	S2
E19	Formaldehyde Storage Tank 20616 gal (V-021) 1971	STAR 5.15 6.13 40 CFR 60 Subparts VV & III 40 CFR 63 Subparts F, G, & H	C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E20	Formaldehyde Storage Tank 20616 gal (V-022) 1971		C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E21	Formaldehyde Storage Tank 20616 gal (V-023) 1971		C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E22	Formaldehyde Storage Tank 20616 gal (V-024) 1971		C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E23	Formaldehyde Storage Tank 20616 gal (V-025) 1971		C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E24	Formaldehyde Storage Tank 20616 gal (V-026) 1971		C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E25	Formaldehyde Storage Tank 20616 gal (V-027) 1971		C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E26	Formaldehyde Storage Tank 20616 gal (V-028) 1971		C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E27	Methanol Storage Tank 750000 gal (V-00A) 1971	STAR 6.13 40 CFR 60 Subparts VV & III 40 CFR 63 Subparts F, G, & H	Internal Floating Roof	S8
E28	Formaldehyde Rail Loading Arm #7 1990	STAR 5.15 7.22 40 CFR 60 Subparts VV & III 40 CFR 63 Subparts F, G, & H	C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E29	Formaldehyde Rail Loading Arm #10 1990		C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E30	Formaldehyde Rail Loading Arm #12 1990		C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E31	Formaldehyde Rail Loading Arm #14 1990		C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E32	Formaldehyde Truck Loading Bay 1990		C6 (Boiler E18) or C26 (Packed Bed Scrubber)	S2 or S3
E34	Formaldehyde Storage Tank 40000 gal (V-58) 1996	STAR 5.15 7.12 40 CFR 60 Subpart Kb 40 CFR 60 Subparts VV & III 40 CFR 63 Subparts F, G, & H	C6 (Boiler E18) or C26 (Packed Bed Scrubber) Submerged Fill	S2 or S3
E35	Formaldehyde Storage Tank 40000 gal (V-59) 1996		C6 (Boiler E18) or C26 (Packed Be Scrubber) Submerged Fill	S2 or S3
E37	UFC Distillate Storage Tank 25000 gal (V-61) 1996	STAR 5.15 7.12 40 CFR 60 Subparts VV & III 40 CFR 63 Subparts F, G, & H	C6 (Boiler E18) or C26 (Packed Bed Scrubber) Submerged Fill	S2 or S3

U1 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. For Emission Points Formaldehyde Rail Loading Arms #4, #7, #10, #12 and Formaldehyde Truck Loading Bay (E28, E29, E30, E31, and E32), when loading, the owner or operator of any loading facility from which 20,000 gallons or more of "volatile organic materials" are loaded in any one day shall not load any volatile organic materials into any tank, truck, trailer, or railroad car from any loading facility unless such loading facility is equipped with a device which reduces the emissions of all hydrocarbon vapors and gases by at least 90% by weight, and which is properly installed, in good working order, and in operation. Loading shall be accomplished in such a manner that all displaced vapor and air will be vented only to the vapor recovery system. Measures shall be taken to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected. (Regulation 7.22, section 3.2) (See Comment 1)

iii. For Methanol Storage Tank V-00A (E27), the owner or operator shall equip the storage vessel with a floating roof, a vapor recovery system, or the equivalent. (Regulation 6.13, section 3.10) (See Comment 2)

iv. For Formaldehyde Storage Tanks V-21 – V-28 (E19, E20, E21, E22, E23, E24, E25, and E26), the owner or operator shall use submerged fill to store VOC materials with an as stored vapor pressure of greater than or equal to 1.5 psia. (Regulation 6.13, section 3)

v. For Formaldehyde Storage Tanks V-58, V-59 and UFC Distillate Storage Tank V-61 (E34, E35, and E37), the owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessels, unless the storage tank is equipped with a permanent submerged fill pipe. (Regulation 7.12, section 3) (See Comment 9)

vi. Bypass of the silver plant boiler (E18 (C6)) shall not exceed 100 hours per 12 consecutive month period. (District Permit 55-97-F(R2))

vii. The Silver Plant Bypass Vent (S3) shall be controlled by the Packed Bed Scrubber (C26) when emissions bypass the Silver Plant Boiler (E18). (District Permit 362-07-C and Regulation 7.25 BACT dated February 16, 2007)

viii. VOC emission from the Packed Bed Scrubber (C26) shall not exceed 0.64 tons per 12 consecutive month period. (Regulation 7.25 BACT dated August 21, 2013)

ix. For the Packed Bed Scrubber (C26) the owner or operator shall maintain the operating liquid flow rate at 2 gal/min or greater in order to assume a destruction efficiency of 27.9% for VOC (as determined by most recent stack test dated November 2011) until new operating conditions are set by a more recent test. At no point should employee safety be jeopardized. A new stack test protocol or BACT analysis shall be submitted within 90 days of the issue date of this permit. (Regulation 2.16, section 4.1.1) (See Comment13)

b. **HAP**

i. See Plant-Wide Unit Specific Conditions.

ii. See Appendix A: HON MACT Requirements.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall not exceed the tons per calendar year TAC limits listed in the following table for the listed Emission Points and Stack ID. (Regulation 5.21 Section 4.3) (See Comment 3)

Equipment ID	Stack ID	Equipment Name	TAC Pollutant	Limit (ton/year)
E13	S2	Reactor 1-60	Formaldehyde	0.0185 for each reactor*
E28	S2	Formaldehyde Rail Loading Arm #7	Formaldehyde	0.1317
			Methanol	4800*
E29	S2	Formaldehyde Rail Loading Arm #10	Formaldehyde	0.1317
			Methanol	4800*
E30	S2	Formaldehyde Rail Loading Arm #12	Formaldehyde	0.1317
			Methanol	4800*
E31	S2	Formaldehyde Rail Loading Arm #14	Formaldehyde	0.1317
			Methanol	4800*
E32	S2	Formaldehyde Truck Loading Bay	Formaldehyde	0.1317
			Methanol	4800*

*De Minimis

iii. During any bypass of the silver plant boiler (E18 (C6)) the owner or operator shall not allow to be operated the Formaldehyde Rail Loading Arms #4, #7, #10, #12 and Formaldehyde Truck Loading Bay (E28, E29, E30, E31, and E32) for a period exceeding 14 minutes and 46 seconds in order not to exceed the following pound per hour de minimis limits. (See Comment 12)

Equipment ID	Stack ID	Equipment Name	TAC Pollutant	Limit (lb/hour)
E28	S3	Formaldehyde Rail Loading Arm #7	Formaldehyde	0.042*
E29	S3	Formaldehyde Rail Loading Arm #10	Formaldehyde	0.042*
E30	S3	Formaldehyde Rail Loading Arm #12	Formaldehyde	0.042*
E31	S3	Formaldehyde Rail Loading Arm #14	Formaldehyde	0.042*
E32	S3	Formaldehyde Truck Loading Bay	Formaldehyde	0.042*

*De Minimis

d. **PM**

For Silver Plant Boiler (E18 (C6)) the owner or operator shall not cause to be discharged into the atmosphere from that affected facility particulate matter in excess of 0.53 pounds per million BTU actual total heat input on a three hour average. (Regulation 6.07, section 3.1) (Comment 4)

e. **Opacity**

For Silver Plant Boiler (E18 (C6)) the owner or operator shall not cause the emission into the open air of particulate matter from any indirect heat exchanger which is greater than 20% opacity. (Regulation 6.07, section 3.2) (See Comment 5)

f. **SO_2**

For Silver Plant Boiler (E18 (C6)) the owner or operator shall not cause to be discharged into the atmosphere from that affected facility any gases which contain sulfur dioxide in excess of 2.72 pounds per million BTU actual total heat input based on a three hour average for combustion of liquid and gaseous fuels. (Regulation 6.07, section 4.1) (See Comment 4)

S2. **Monitoring and Record Keeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall keep a daily record of the amount of VOM in gallons loaded into any tank, truck, trailer, or railroad car.

iii. The owner or operator of Formaldehyde Storage Tanks V-21 – V-28, V-58, V-59 and UFC Distillate Storage Tank V-61 (E19, E20, E21, E22, E23, E24, E25, E26, E27, E34, E35, and E37) shall maintain records of the material stored including vapor pressure and, if the contents of the storage vessels are changed, a record shall be made of the new contents, the new vapor pressure, and the date of the change adequate to demonstrate compliance with the standard.

iv. The owner or operator shall keep a record that shows if the storage vessels are equipped with a submerged fill pipe. Submerged fill pipe means any fill pipe the discharge of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean every fill pipe the discharge opening of which is entirely submerged when the liquid level is 2 times the fill pipe diameter above the bottom of the tank.

v. The owner or operator shall keep a record of the following for the Silver Plant Boiler (E18 (C6)) and the Packed Bed Scrubber (C26):

1) The flow rate of the Packed Bed Scrubber (C26) every 8 hours, and if the scrubber is operated less than 8 hours at least one reading shall be recorded to demonstrate that the scrubber is maintaining the minimum performance test flow rate of 2 gallons per minute;

2) Number of times and duration that the vent stream by-passes both the Silver Plant Boiler (E18 (C6)) and the Packed Bed Scrubber (C26);

3) Number of times and duration that the vent stream by-passes the Silver Plant Boiler (E18 (C6)) and is controlled by the Packed Bed Scrubber (C26);

4) Monthly calculate and record the 12 month rolling total of time (in hours) that the vent stream by-passes the Silver Plant Boiler (E18 (C6)) and is controlled by the Packed Bed Scrubber (C26);

5) Monthly calculate and record the quantity in tons of VOC emissions for the most recent period of 12 consecutive months rolling total when emissions by-pass the Silver Plant Boiler (E18 (C6)) and are controlled by the Packed Bed Scrubber (C26).

b. **HAP**

i. See Plant-Wide Unit Specific Conditions.

ii. See Appendix A: HON MACT Requirements.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall monthly calculate and record the year to date TAC emissions for each month in the reporting period to determine the status of compliance for the Emission Points and corresponding Stack ID listed in the table of S1.d.ii.

iii. If there is any time that operation of the Formaldehyde Rail Loading Arms #4, #7, #10, #12 and Formaldehyde Truck Loading Bay (E28, E29, E30, E31, and E32) exceeds 14 minutes and 46 seconds during any 60 minute period while the Silver Plant Boiler (E18 (C6)) is bypassed or not in operation then the owner or operator shall keep a record of the following:

1) Date;

2) Start time and stop time of the bypass event;

3) Identification of the process equipment operating during the bypass;

4) Start time and stop time of operation of each loading arm and loading bay during the bypass event;

5) Formaldehyde emissions from each loading arm and loading bay (E28, E29, E30, E31, and E32) which exceeded 14 minutes and 46 seconds of operation during the bypass in lb/hr;

6) Summary of the cause or reason for each event;

7) Corrective action taken to minimize the extent or duration of the event; and

8) Measures implemented to prevent reoccurrence of the situation that resulted in the event.

d. **PM**

There are no compliance monitoring or recordkeeping requirements for this equipment. (See Comment 4)

e. **Opacity**

i. For Silver Plant Boiler (E18 (C6)) the owner or operator shall conduct a monthly one-minute visible emissions survey, during normal operation, of the emission points. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

iii. The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

f. **SO_2**

There are no compliance monitoring or recordkeeping requirements for this equipment. (See Comment 4)

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

The owner or operator shall include, at a minimum, Emission Unit and Emission Point identification with the following information in the semi-annual compliance monitoring reports required in the Plant-Wide Unit, unless otherwise noted. (See General Condition 14)

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall clearly identify all deviations from loading, unloading and storage tank requirements of S1.a.ii through S1.a.v in the semi-annual reports. If no deviations occur in that reporting period then the owner or operator shall report a negative declaration.

iii. The owner or operator shall report the following information regarding VOC Bypass Activity in the semi-annual reports for the Silver plant Boiler (E18 (C6)) and the Packed Bed Scrubber (C26):

1) Any deviation from the requirement to record the flow rate of the Packed Bed Scrubber (C26) every 8 hours the scrubber is operated;

2) Any deviation from the requirement to maintain the flow rate of the Packed Bed Scrubber (C26) at 2 gal/min or greater;

3) Number of times and duration that the vent stream bypasses both the Silver Plant Boiler (E18 (C6)) and the Packed Bed Scrubber (C26);

4) Number of times and duration that the vent stream bypasses the Silver Plant Boiler (E18 (C6)) and is controlled by the Packed Bed Scrubber (C26);

5) The 12 month rolling total in hours of time the vent stream bypasses the Silver Plant Boiler (E18 (C6)) and is controlled by the Packed Bed Scrubber (C26) for each month in the reporting period; and

6) Quantity in tons of VOC emissions for the 12 consecutive months rolling totals when emissions bypass the Silver Plant Boiler (E18 (C6)) and are controlled by the Packed Bed Scrubber (C26) for each month in the reporting period in order to demonstrate compliance with S1.a.viii.

b. **HAP**

i. See Plant-Wide Unit Specific Conditions.

ii. See Appendix A: HON MACT Requirements.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall report the following information regarding the emission limits listed in the table of S1.c.ii;

1) The year to date TAC emissions from each month in the reporting period from emission points listed to determine compliance with corresponding emission limits listed,

2) Identification of all periods of exceedance of the TAC emission limits, and

3) Description of any corrective action taken for each exceedance.

iii. The owner or operator shall report the following regarding any By-Pass of the the Silver Plant Boiler (E18 (C6)) when operation of the Formaldehyde Rail Loading Arms #4, #7, #10, #12 and Formaldehyde Truck Loading Bay (E28, E29, E30, E31, and E32) exceeded 14 minutes and 46 seconds during any 60 minute period.

1) Date;

2) Start time and stop time of the bypass event;

3) Identification of the process equipment operating during the bypass;

4) Start time and stop time of operation of each loading arm and loading bay during the bypass event;

5) Formaldehyde emissions from each loading arm and loading bay (E28, E29, E30, E31, and E32) which exceeded 14 minutes and 46 seconds of operation during the bypass in lb/hr; or

6) A negative declaration if no by-passes occurred.

d. **PM**

There are no compliance reporting requirements for this equipment. (See Comment 4)

e. **Opacity**

For Silver Plant Boiler (E18 (C6)) the owner or operator shall clearly identify all deviations from permit requirements in the semi-annual reports. If no deviations occur in that reporting period then the owner or operator shall report a negative declaration.

i. The date, time and results of each Method 9 that exceeded the opacity standard,

ii. The number of surveys where visible emissions were observed, and

iii. Description of any corrective action taken.

f. **SO_2**

There are no compliance reporting requirements for this equipment. (See Comment 4)

U1 Comments

1. Regulation 7.22 applies only to the loading of volatile organic materials (VOMs), which are any volatile organic compounds (VOCs) having a true vapor pressure of 1.5 psia or greater under actual storage conditions. VOCs which are not VOMs are not subject to this regulation. There are no standards if each loading facility loads less than 200 gallons per day of VOMs.
2. The maximum true vapor pressure of methanol is 1.5813 psia (10.9 kPa). Storage vessel (E27) is equipped with an internal floating roof. Storage tank Regulations 6.13 requirements are considered by the District to be equivalent to 40 CFR 63 Subpart G requirements.
3. TAC limits are based on EA Demonstration submitted by the company and received by the District on 2/14/2014. This unit has TAC emission standards since its EA Demonstration was based on controlled PTE. If the controlled PTE for the TAC is less than de minimis level, De Minimis is listed as the basis of the limit. If the controlled PTE for the TAC is greater than de minimis level, modeling results were used to calculate risk value to compare to the EA Goals. In this case, modeled emission rates are used as the basis of the limit.
4. A one-time PM and SO_2 compliance demonstration has been performed for the boiler, using AP-42 emission factors and combusting natural gas, and the emission standards cannot be exceeded. Therefore, there are no monitoring, record keeping, and reporting requirements for this boiler with respect to lb/MMBtu PM and SO_2 emission limits.
5. Company correspondence indicates that operations which cause emissions have ceased for the following equipment listed in the table and must submit a construction permit application in order to resume use of the equipment for the handling of VOC, HAP, TAC or any other materials which may contain criteria pollutants.

ID	Description
E15	Deacidifier Rinse Water Tank 1970
E16	Deacidification Tank 1 1970
E17	Deacidification Tank 2 1970
E36	Formaldehyde Storage Tank, 40000 gal 1996

6. Waste Heat Recovery Boilers (E5 and E360) do not combust any fuel, therefore are not defined as indirect heat exchangers. Per 40 CFR 63.11237, Subpart JJJJJJ, waste heat boilers are excluded from the definition of Boiler.
7. The Silver Plant Boiler E18 commenced construction prior to June 9, 1989 and therefore is not subject to 40 CFR part 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.
8. For the Silver Plant Boiler (E18) per 40 CFR 63.11195(e), a gas-fired boiler is not subject to the subpart JJJJJJ.
9. For (E34 -E36), 40 CFR 63.110(b)(1) states that after the compliance dates [1997] specified in 63.100 of subpart F of this part, a Group 1 or Group 2 storage vessel that is also subject to the provisions of 40 CFR part 60, subpart Kb is required to comply only with the provisions of this subpart.
10. The Company has chosen to demonstrate compliance with the HON MACT requirements in lieu of the requirement of 40 CFR 60 Subpart VV, III, and RRR Per 63.110(d)(10) and 63.160(c)(1).
11. Process equipment falls under Regulation 7.02 (40 CFR 60 Subpart III and Subpart VV) because of the installation of additional reactors in 1983 and 1987.

12. The value of 14 minutes and 46 seconds was determined to ensure that the de minimis pound per hour value for formaldehyde (0.042 lb/hr) is not exceeded by the equipment during bypass of the silver plant boiler, and is based on the lb/hr uncontrolled PTE of 0.3007 lb/hr of formaldehyde emissions from each of the loading arms and truck loading bay as well as an efficiency value of 43.3% for the Packed Bed Scrubber (C26).

13. This value of 2 gal/min flow comes from the construction application dated 2/20/2007.

Emission Unit U2: Resin Production (PF-1) Powders

U2 Emission Unit Description: Manufacturing of phenolic resins

U2 Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1 through 3
7.12	Standard of Performance for New Storage Vessels for Volatile Organic Compounds	1 through 5
7.22	Standard of Performance for New Volatile Organic Materials Loading Facilities	1 through 5
7.25	Standard of Performance for New Sources Using Volatile Organic Materials	1 through 5
40 CFR 68	Chemical Accident Prevention Provisions	Subparts A through H

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	All
5.01	General Provisions	1 through 4
5.15	Chemical Accident Prevention Provisions	1
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

U2 Equipment:

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E38	V-217 Seal Water Tank 370 gal (V-217) 1977	STAR 5.15 7.25	PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E39	Knockout Pot 300 gal (V-218A) 1977	STAR 7.25	PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E40	Phenol Weigh Tank5300 gal (V-219) 1977		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E41	D Formaldehyde Weigh Tank 3125 gal (V-220) 1977	STAR 5.15 7.25	PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E42	Reactor Line A HCHO Weigh Tank 3125 gal (V-204A) 1977		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E43	Reactor Line A Condenser (E-201A) 1977	STAR 5.15 7.25	PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E44	Reactor Line A Distillate Receiver (V-208A) 6900 gal 1977		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer) for Vacuum Distillates/ NA for Atmospheric Distillates	PF-1 RTO for Vacuum/ S-DR-V208A for Atmospheric
E45	Reactor Line A Reactor (R-201A) 8836 gal 1977		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E46	Reactor Line A Surge Tank 5450 gal (V-205A) 1977		C3 (PF-1 Fume Scrubber)	S-DR-V205A
E47	A Azeotropic Separator 572 gal (V-221A) 1977		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E48	Reactor Line B Condenser (E-201B) 1977		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E49	Reactor Line B HCHO Weigh Tank 3125 gal (V-204B) 1977		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E50	Reactor Line B Reactor 8835 gal (R-201B) 1977		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E51	Reactor Line B Distillate Receiver 6900 gal (V-208B) 1977		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer) for Vacuum Distillates/ NA for Atmospheric Distillates	PF-1 RTO for Vacuum/ S-DR-V208B for Atmospheric
E52	Reactor Line B Surge Tank 6000 gal (V-205B) 1977		NA	S-DR-V205B
E53	B Azeotropic Separator 572 gal (V-221B) 1977		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E54	Reactor Vacuum Compressor (K-202-1) 1995		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E55	Reactor Vacuum Compressor (K-202-2) 1977		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E56	Reactor Vacuum Compressor (K-202-3) 1977		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E57	Reactor Vacuum Compressor (K-202-4) 1977		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E58	Reactor Vacuum Compressor (K-202-5) 1977		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E59	Reactor Vacuum Compressor Separator 200 gal (V-207A) 1977	STAR 5.15 7.25	PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E60	Reactor Vacuum Compressor Separator 200 gal (V-207B) 1977		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E61	Vacuum Compressor Knockout Pot 200 gal (V-207D) 1977		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E63	A Flaker (M-401A) 1977	STAR 7.25 7.08	C3 (PF-1 Fume Scrubber) and C12 (Fabric Filter)	S9 and S50
E64	A Flake Breaker (M-402A) 1977	7.08	C12 (Fabric Filter)	S50
E65	A Flaker Hopper (M-403A) 2006		C12 (Fabric Filter)	S50
E67	B Flaker (M-401B) 1977	STAR 7.25 7.08	C3 (PF-1 Fume Scrubber) and C12 (Fabric Filter)	S9 and S50
E68	B Flake Breaker (M-402B) 1977	7.08	C12 (Fabric Filter)	S50
E69	B Flaker Hopper (M-403B) 2006		C12 (Fabric Filter)	S50
E72	Flake Tote Scale (M-410) 1977		NA	S64

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E73	Flake Tote Filling Scale (M-415) 1977		C12 (Fabric Filter)	S50
E75	A and B Crusher (M-505) 1977		C20 (Fabric Filter)	S58
E76	A and B Grinder Feed Bin (V-514) 1977		C20 (Fabric Filter)	S58
E77	Resin Grinder A (M-516A) 1977		C13 (Fabric Filter)	S51
E78	Resin Grinder B (M-516B) 1977		C14 (Fabric Filter)	S52
E79	Blender A (M-519A) 1977		C16 (Fabric Filter)	S54
E80	Blender B (M-519B) 1977		C16 (Fabric Filter)	S54
E81	Blender C (M-519C) 1977		C16 (Fabric Filter)	S54
E82	Powder Resin Screener A (M-521A-1) 1977	7.08	C16 (Fabric Filter)	S54
E83	Powder Resin Screener B (M-521B-1) 1977		C16 (Fabric Filter)	S54
E84	Powder Bagger A (M-524A) 1977		C16 (Fabric Filter)	S54
E85	Powder Bagger B (M-524B) 1977		C16 Fabric Filter	S54
E86	Talc Mixer 1977		C16 (Fabric Filter)	S54
E87	A-B Side Super Sacker (M-525) 1977		C19 (Fabric Filter)	S57
E88	Decanted Phenol Storage Tank 25000 gal (V-101) 1977	STAR 7.12	Submerged Fill	S18
E90	93% Sulfuric Acid Tank (V-104) 1940 gal	STAR	Submerged Fill	S19

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E91	Butyl Acetate Storage Tank 6000 gal (V-106) 1977	STAR 5.15 7.12	Submerged Fill	S20
E95	Weak Distillate Storage Tank 20300 gal (V-302A) 1977		Submerged Fill	S25
E96	Weak Distillate Storage Tank 20300 gal (V-302-B) 1977		Submerged Fill	S26
E99	Recovered Phenol Storage Tank 25382 gal (V-312A) 1977		Submerged Fill	S29
E101	Drumming Shed #1-Tote Filling 1985	STAR 5.15 7.22	NA	S45
E102	Drumming Shed #2-Tote Filling 1985		NA	S46
E104	Truck Loading Station 1985	STAR 5.15 7.22	NA	S47
E109	Liquid Resin Storage Tank 17000 gal (V-612-2A) 1985	STAR 7.12	NA	S34
E120	Glycol Water Storage Tank 20000 gal (V-833) 1977	STAR 7.12	Submerged Fill	S32
E123	Formaldehyde Weigh Tank 5300 gal (V-225E/F) 1991	STAR 5.15 7.25	PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E124	Formaldehyde Weigh Tank 5300 gal (V-226E/F) 1991		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E125	Reactor Line C Condenser (E-201C) 1991		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E126	Reactor Line C Distillate Receiver 6900 gal (V-208C) 1991		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer) for Vacuum Distillation/ NA for	PF1RTO for Vacuum/ S-DR-V208C for Atmospheric

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
			Vacuum Distillates	
E127	Reactor Line C Reactor 6600 gal (R-201C) 1991		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E128	Reactor Line D Condenser (E-201D) 1991		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E129	Reactor Line D Distillate Receiver 6900 gal (V-208D) 1991		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer) for Vacuum Distillates/ NA for Atmospheric Distillates	PF1RTO for Vacuum/ S-DR-V208D for Atmospheric
E130	Reactor Line D Reactor 10000 gal (R-201D) 1991		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E131	Reactor Line D Surge Tank 10000 gal (V-205DS) 1991		NA	S10
E132	Reactor Line E Condenser (E-201E) 1991		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E133	Reactor Line E Reactor 11000 gal (R-201E) 1991		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E134	Reactor Line E Surge Tank 13600 gal (V-205E) 1991		NA	S-DR-V205E
E135	Reactor Line E Distillate Receiver 6900 gal (V-208-E) 1991		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer) for Vacuum Distillates/ NA for Atmospheric Distillates	PF1RTO for Vacuum/ S-DR-V208E for Atmospheric
E136	Lime Slurry Tank 200 gal (V-228E) 1991	IA	NA	S15
E137	Oxalic Acid Tank 200 gal (V-229E)	IA	NA	S14

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E139	Small Utility Storage Tank 220 gal (V-211) 1991	IA	NA	S12
E140	Reactor Vacuum Compressor (K-202-6) 1995	STAR 5.15 7.25	PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E141	Reactor Vacuum Compressor (K-202-7) 1995		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E142	Reactor Vacuum Compressor (K-202-8) 1995		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E144	Reactor Vacuum Compressor Separator 200 gal (V-207E) 1991		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E147	House Vacuum System (F-506C) 1991	7.08	C15 (Fabric Filter)	S53
E150	Reactor Line F Reactor 16000 gal (R-201F) 1995	STAR 5.15 7.25	PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E151	Reactor Line F Condenser (E-201F) 1995		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E152	Reactor Line F Distillate Receiver 6900 gal (V-208F) 1995		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E153	Reactor Line F Surge Tank 13600 gal (V-206F) 1995		NA	S-DR-V206F
E155	Lime Slurry Tank 400 gal (V-228F) 1995	IA	NA	S16
E156	Oxalic Acid Tank (V-229F) 200 gal	IA	NA	S14

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E157	Reactor Vacuum Compressor Separator 33 gal (V-218-7) 1995	STAR 5.15 7.25	PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E158	Reactor Vacuum Compressor Separator 33 gal (V-218-8) 1995		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E159	Reactor Vacuum Compressor Separator 33 gal (V-218-6) 1995		PF-1 RTO (PF-1 Recuperative Thermal Oxidizer)	PF-1 RTO
E160	E/F Seal Water Pot 500 gal (E-204) 1995		NA	S11
E161	C Flaker (M-401C) 1993	STAR 7.08 7.25	C3 (PF-1 Fume Scrubber)) and C21 (Fabric Filter)	S9and S59
E162	C Flake Breaker (M-402C) 1993	7.08	C21 (Fabric Filter)	S59
E163	C Flake Hopper (M-403C) 1993		C21 (Fabric Filter)	S59
E165	D Flaker (M-401D) 1995	STAR 7.08 7.25	C3 (PF-1 Fume Scrubber) and C21 (Fabric Filter)	S9 and S59
E166	D Flake Breaker (M-402D) 1995	7.08	C21 (Fabric Filter)	S59
E167	D Flake Hopper 1995		C21 (Fabric Filter)	S59
E170	o-Cresol Storage Tank 25000 gal (V-108) 1995	7.12	Submerged Fill	S24
E171	Phenol Distillate Decanter 20300 gal (V-312B) 1994	STAR 5.15 7.25	NA	S30
E172	Fatty Acid Storage Tank 12000 gal (V-399) 1994	7.12	NA	S31

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E173	C/D Flake Crusher (M-555) 1995	7.08	C18 (Fabric Filter)	S56
E174	C Grinder Feed Bin (V-154C) 1995		C18 (Fabric Filter)	S56
E175	Resin Grinder C (M-516C) 1995		C24 (Fabric Filter)	S63
E176	D Blender (M-519D) 1995		C23 (Fabric Filter)	S62
E177	E Blender (M-519E) 1995	7.08	C17 (Fabric Filter)	S55
E178	D Screen (M-520D) 1995		C23 (Fabric Filter)	S62
E179	E Screen (M-520E) 1995		C17 (Fabric Filter)	S55
E180	Powder Bagger C (M-524C) 1995		C16 (Fabric Filter)	S54
E181	Powder Bagger D (M-524D) 1995		C23 (Fabric Filter)	S62
E182	Powder Bagger E (M-524E) 1995		C23 (Fabric Filter)	S62
E183	C-Side Powder Drum Packer (M-526) 1995		C23 (Fabric Filter)	S62
E184	C Supersacker (M-527) 1995		C23 (Fabric Filter)	S62
E185	Hexa Station 1995		NA	S60
E462	Recovered Phenol Tank Vent 25380 gal (V-314)	STAR 5.15 7.12	NA	S28
E463	Phenolic Distillate Tank 35535 gal (V-316)		NA	S21
E464	Phenolic Distillate Tank 35535 gal (V-317)		NA	S22
E472	45% KOH Storage Tank (V-105)	IA	Submerged Fill	NA
E475	ABC-Bagger Surge Bin 2003	STAR 5.15	C16 (Fabric Filter)	S54

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E476	Super Sack Transfer Conveyor 2003	7.12	C16 (Fabric Filter)	S54
E477	C Bucket Conveyor 2003		C21 (Fabric Filter)	S59
E478	C Transfer Conveyor 2003		C21 (Fabric Filter)	S59
E480	D Bucket Conveyor 2003		C21 (Fabric Filter)	S59
E483	C/D Flaking area Bag Filling Station 2003		C21 (Fabric Filter)	S59
E484	Carbon Black Surge Bin 2003		C17 (Fabric Filter)	S55
E486	Furfuryl Alcohol Raw Material Blend Storage Tank 15000 gal (V-42-622)	STAR 5.15 7.12	NA	S176

U2 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. For Emission Points (E104), when loading, the owner or operator of any loading facility from which 20,000 gallons or more of "volatile organic materials" are loaded in any one day shall not load any volatile organic materials into any tank, truck, trailer, or railroad car from any loading facility unless such loading facility is equipped with a device which reduces the emissions of all hydrocarbon vapors and gases by at least 90% by weight, and which is properly installed, in good working order, and in operation. Loading shall be accomplished in such a manner that all displaced vapor and air will be vented only to the vapor recovery system. Measures shall be taken to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected. (Regulation 7.22, section 3.2) (See Comment 1)

iii. For Storage Tank (E88, E91, E95, E96, and E99), the owner or operator shall use submerged fill to store VOC materials with an as stored vapor pressure of greater than or equal to 1.5 psia. (Regulation 7.12, section 3)

iv. For Emission Points (E109, E120, E138, E170, E172, E462, E463, and E464 the owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessels, unless the storage tank is equipped with a permanent submerged fill pipe. (Regulation 7.12, section 3)

v. For the PF-1 Fume Scrubber (C3) the owner or operator shall maintain the operating liquid flow rate at 53 gal/min or greater in order to assume a destruction efficiency of 71.6% of VOC (as determined by the stack test dated December 2000) until new operating conditions are set by a more recent test. (Regulation 2.16, section 4.1.1)

vi. Emission points directed to the PF-1 Scrubber (C21) and PF-1 RTO (C3) shall continue to be controlled by the PF-1 Scrubber until the PF-1 RTO is installed as per District Permit 55-97-F(R2) and 77-00-C. Once the PF-1 RTO is installed, the appropriate emission units shall be redirected from the PF-1 Scrubber to the PF-1 RTO. (District Permit 28626-13-C)

b. **HAP**

See Plant-Wide Unit Specific Conditions.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall not exceed the tons per calendar year TAC limits listed in the following table for the listed Emission Points and Stack ID. (Regulation 5.21 Section 4.3) (See Comment 2)

Equipment ID	Stack ID	Equipment Name	TAC Pollutant	Limit (ton/year)
E41	PF1RTO	D Formaldehyde Weigh Tank	Formaldehyde	0.0185*
E42	PF1RTO	Reactor Line A: HCHO Weigh Tank	Formaldehyde	0.0185*
E44	PF1RTO	Reactor Line A: Distillate Receiver	Formaldehyde	0.0185*
E45	PF1RTO	Reactor Line A: Reactor	Formaldehyde	0.0185*
E46	PF1RTO	Reactor Line A: Surge Tank	Phenol	48.0*
E49	PF1RTO	Reactor Line B: HCHO Weigh Tank	Formaldehyde	0.0185*
E50	PF1RTO	Reactor Line B: Reactor	Formaldehyde	0.0185*
E51	PF1RTO	Reactor Line B: Distillate Receiver	Formaldehyde	0.0185*
E52	PF1RTO	Reactor Line B: Surge Tank	Phenol	48.0*

Equipment ID	Stack ID	Equipment Name	TAC Pollutant	Limit (ton/year)
E123	PF1RTO	Formaldehyde Weigh Tank	Formaldehyde	0.0185*
E124	PF1RTO	Formaldehyde Weigh Tank	Formaldehyde	0.0185*
E126	PF1RTO	Reactor Line C: Distillate Receiver	Formaldehyde	0.0185*
E127	PF1RTO	Reactor Line C: Reactor	Triethylamine	1.680*
			Formaldehyde	0.0185*
			Styrene	0.4080*
E129	PF1RTO	Reactor Line D: Distillate Receiver	Formaldehyde	0.0185*
E130	PF1RTO	Reactor Line D: Reactor	Triethylamine	1.6800*
			Formaldehyde	0.0185*
			Styrene	0.4080*
E131	S10	Reactor Line D: Surge Tank	Phenol	48.0*
E133	PF1RTO	Reactor Line E: Reactor	Formaldehyde	0.0185*
E134	PF1RTO	Reactor Line E: Surge Tank	Phenol	48.0*
E135	PF1RTO	Reactor Line E: Distillate Receiver	Formaldehyde	0.0185*
E150	PF1RTO	Reactor Line F: Reactor	Formaldehyde	0.0185*
E152	PF1RTO	Reactor Line F: Distillate Receiver	Formaldehyde	0.0185*
E153	PF1RTO	Reactor Line F: Surge Tank	Phenol	48.0*

*De Minimis

iii. For the Recuperative Thermal Oxidizer (PF-1 RTO), the owner or operator shall operate the oxidizer with a minimum residence time of 0.50 seconds and a combustion temperature above the minimum temperature of 1350°F on a three hour average and assume a 98% destruction efficiency for VOC until an initial performance test report has been approved by the District at which time the destruction efficiency and operating conditions will be replaced by the documented test conditions and results. (Regulation 2.16, section 4.1.1)

d. **PM**

i. Emission Points (E63- E65, E67- E69, E72, E73, E75, E76, E79-E87, E147, E161-E163, E165-E167, E173, E176-E182, E184, E185, E475- E478, E480, E483, and E484), the owner or operator shall not cause to be discharged into the atmosphere PM emissions that exceed 9.73 lb/hr each based on actual operating hours in a calendar day. (District Permit 74-03-C, 174-06-C, 175-06-C, 177-06-C, 178-06-C, and 503-08-C) (See Comment 5)

ii. For Emission Points (E77, E78, E174, E175, and E183), the owner or operator shall not cause to be discharged into the atmosphere PM emissions that exceed 6.33 lb/hr each based on actual operating hours in a calendar day. (Regulation 7.08, section 3.1.2) (See Comment 5)

iii. The owner or operator shall utilize controls at all times the process equipment is in operation and shall, to the extent, practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 2.16, section 4.1.1) (See Comment 5)

iv. For Control Device (C12) (Fabric Filter), the owner or operator shall maintain the pressure drop across the fabric filter between 1 and 5 inches H_2O.

v. For Control Devices (C13) (Fabric Filter), the owner or operator shall maintain the pressure drop across the fabric filter between 1 and 5 inches H_2O.

e. **Opacity**

The owner or operator shall not cause the emission into the open air of particulate matter from emission points (E63-E65, E-67-E69, E72, E73, E-75-E87, E147, E161-E163, E165-E167, E173-E182, E184, E185, E475-E478, E480, E483, and E484) that equals or exceeds 20% opacity. (Regulation 7.08, section 3.1.1)

S2. **Monitoring and Record Keeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall monitor and record the liquid flow rate of the C3 (PF-1 Fume Scrubber) every 8 hours. If the scrubber is operated less than 8 hours at least one reading shall be taken.

iii. For Emission Point (E104), the owner or operator shall keep a daily record of the amount of VOM in gallons loaded into any tank, truck, trailer, or railroad car.

iv. The owner or operator of storage vessels (E88, E91, E94, E95, E96, E97, E99, E109, E120, E138, E170, E172, E462, E463, E464, E485, E486) shall maintain records of the material stored including vapor pressure and, if the contents of the storage vessels are changed, a record shall be made of the new contents, the new vapor pressure, and the date of the change adequate to demonstrate compliance with the standard.

v. The owner or operator shall keep a record that shows if the storage vessels are equipped with a submerged fill pipe. Submerged fill pipe means any fill pipe the discharge of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean every fill pipe the discharge opening of which is entirely submerged when the liquid level is 2 times the fill pipe diameter above the bottom of the tank.

b. **HAP**

See Plant-Wide Unit Specific Conditions.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall monthly calculate and record the year to date TAC emissions for each month in the reporting period to determine the status of compliance for the Emission Points and corresponding Stack ID listed in the table of S1.c.ii.

iii. For the Recuperative Thermal Oxidizer (PF-1 RTO), the owner or operator shall continuously monitor the combustion temperature. The combustion temperature monitoring device shall be equipped with a continuous recorder. Continuously monitor and record the combustion temperature is defined as a frequency of four points equally spaced for each hour as outlined in 40 CFR 63.2 General Provisions.

iv. All 3 hour periods of operation when the average combustion temperature is below the minimum temperature shall be considered to be uncontrolled with zero percent destruction efficiency. Multiple performance tests can be conducted with various average combustion temperatures and resulting efficiencies for each. Any destruction efficiency achieved shall only be used in emission calculations when the actual recorded three hour average temperature during process operations is greater than or equal to the average combustion temperature documented in a District approved stack test. The minimum temperature is considered to be the lowest temperature for which a District accepted stack test has been performed unless otherwise specified. Stack test results will not be considered applicable after a period of 10 years following the date of the performance test.

v. When the Recuperative Thermal Oxidizer (PF-1 RTO) is operating and processing any process vent stream, the owner or operator shall maintain continuous combustion temperature records. The continuous data recorder shall record at least 95% of the temperature records.

vi. The owner or operator shall keep a monthly record of the hours the process operated and the hours where temperature data was continuously recorded. The owner or operator shall monthly calculate the percentage of time that temperature data was continuously recorded for the previous month.

d. **PM**

i. For Control Devices (C12 and C13) (Fabric Filters), the owner or operator shall daily monitor and record the pressure drop across the fabric filter.

ii. For Control Devices (C17 and C24) (Fabric Filters), the owner or operator shall daily perform visual inspections of the fabric filter to ensure mechanical integrity and proper operation, including pulse air mechanism. Bags (filters) shall be replaced as needed. Verify that the fans associated with the equipment are operating.

iii. For Control Devices (C12, C13, C14, C15, C16, C18, C19, C20, C21 and C23) (Fabric Filters), the owner or operator shall monthly perform visual inspections of the fabric filter to ensure mechanical integrity and proper operation, including pulse air mechanism. Bags (filters) shall be replaced as needed. Verify that the fans associated with the equipment are operating.

iv. The owner or operator shall maintain daily records of any periods of time where the process was operating and the control device was not operating or a declaration at the end of each month that the control device operated at all times that day when the process was operating.

v. If there is any time that a control device (C12, C13, C17, or C24) (Fabric Filters) is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:

1) Date;

2) Start time and stop time;

3) Identification of the control device and process equipment;

4) PM emissions during the bypass in lb/hr;

5) Summary of the cause or reason for each bypass event;

6) Corrective action taken to minimize the extent or duration of the bypass event; and

7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

e. **Opacity**

i. For emission points (E63- E65, E-67- E69, E72, E73, E-75-E87, E147, E161-E163, E165-E167, E173-E182, E184, E185, E475-E478, E480, E483, and E484), the owner or operator shall conduct a monthly one-minute visible emissions survey, during normal operation of the emission points. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

iii. The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

The owner or operator shall include, at a minimum, Emission Unit and Emission Point identification with the following information in the semi-annual compliance monitoring reports required in the Plant-Wide Unit, unless otherwise noted. (See General Condition 14)

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall clearly identify all deviations from loading and storage requirements of S1.a.ii through S1.a.iv in the semi-annual reports. If no deviations occur in that reporting period then the owner or operator shall report a negative declaration.

iii. For the C3 (PF-1 Fume Scrubber), the owner or operator shall clearly identify all deviations from permit requirements in the semi-annual reports including the following. If no deviations occur in that reporting period then the owner or operator shall report a negative declaration.

1) Any deviation from the requirement to record the flow rate of the PF-1 Fume Scrubber (C3) every 8 hours the scrubber is operated;

2) Any deviation from the requirement to maintain the flow rate of the PF-1 Fume Scrubber (C3) at 53 gal/min or greater; and

3) Description of any corrective action taken for each excursion.

b. **HAP**

See Plant-Wide Unit Specific Conditions.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall report the following information regarding the emission limits listed in the table of S1.c.ii;

1) The year to date TAC emissions from each month in the reporting period from emission points listed to determine compliance with corresponding emission limits listed,

2) Identification of all periods of exceedance of the TAC emission limits, and

3) Description of any corrective action taken for each exceedance.

iii. For the Recuperative Thermal Oxidizer (PF-1 RTO), the owner or operator shall clearly identify all deviations from permit requirements in the semi-annual reports. If no deviations occur in that reporting period then the owner or operator shall report a negative declaration.

1) Identification of all periods where the temperature is below the standard on a 3 hour average,

2) The percentage of time that data was recorded for each month, and

3) Description of any corrective action for each excursion.

d. **PM**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring report for PM and clearly identify all deviations from permit requirements in the semi-annual reports. If no deviations occur in that reporting period then the owner or operator shall report a negative declaration:

i. Identification of all periods of exceedance of the PM emission limits;

ii. Identification of all periods of exceedance of the pressure drop ranges,

iii. Identification of all missed visual inspections;

iv. Description of any corrective action taken for each excursion or exceedance;

v. Calculations of the PM emission rate during the times that standards or limits were exceeded;

vi. The following information regarding control device (C12, C13, C17, and C24) bypass events;

1) Number of times the PM vent stream bypasses the control device and is vented to the atmosphere,

2) Duration of each bypass to the atmosphere,

3) Calculated pound per hour PM emissions for each bypass, or

4) A negative declaration if no bypasses occurred.

e. **Opacity**

The owner or operator shall clearly identify all deviations from permit requirements in the semi-annual reports. If no deviations occur in that reporting period then the owner or operator shall report a negative declaration.

i. The date, time and results of each Method 9 that exceeded the opacity standard,

ii. The number of surveys where visible emissions were observed, and

iii. Description of any corrective action taken.

U2 Comments

1. Regulation 7.22 applies only to the loading of volatile organic materials (VOMs), which are any volatile organic compounds (VOCs) having a true vapor pressure of 1.5 psia or greater under actual storage conditions. VOCs which are not VOMs are not subject to this regulation. There are no standards if each loading facility loads less than 200 gallons per day of VOMs.

2. TAC limits are based on EA Demonstration submitted by the company and received by the District on 2/14/2014. This unit has TAC emission standards since its EA Demonstration was based on controlled PTE. If the controlled PTE for the TAC is less than de minimis level, De Minimis is listed as the basis of the limit. If the controlled PTE for the TAC is greater than de minimis level, modeling results were used to calculate risk value to compare to the EA Goals. In this case, modeled emission rates are used as the basis of the limit.

3. Company correspondence indicates that operations which cause emissions have ceased for the following equipment listed in the table and must submit a construction permit application in order to resume use of the equipment for the handling of VOC, HAP, TAC or any other materials which may contain criteria pollutants.

ID	Description
E71	Flake Bagger 1977
E94	Fresh Phenol Storage Tank, 20300 gal 1977
E97	Decanted Phenol Storage Tank, 10150 gal 1977
E103	East Railcar Unloading Station 1977
E105	West Railcar Unloading Station 1977
E108	Liquid Resin Storage Tank (V-611-1A), 20000gal 1985
E110	Liquid Resin Storage Tank (V-613-3A), 17000 gal 1985
E111	Liquid Resin Storage Tank (V-621-1B), 20000 gal 1985

E112	Glyoxal Storage Tank (V-623-3B), 17000 gal 2002
E113	Liquid Resin Storage Tank (V-631-1C), 20000 gal 1985
E114	Liquid Resin Storage Tank (V-632-2C), 17000 gal 1985
E115	Liquid Resin Storage Tank (V-633-3C), 9500 gal 1985
E116	Liquid Resin Storage Tank, 20000 gal 1985
E117	Liquid Resin Storage Tank, 20000 gal 1985
E118	Liquid Resin Storage Tank, 20000 gal 1985
E119	Liquid Resin Storage Tank, 20000 gal 1985
E138	Large Utility Storage Tank (V-209), 3125 gal 1991
E145	Reactor Vacuum Compressor Separator, 200 gal 1991
E186	Pallet Dust Cleaner 1995
E471	C-Side Cyclone CY-002
E472	A and B Side Cyclone CY-001

4. The provisions of 40 CFR 60 subpart VV, III, and RRR along with 40 CFR 63 subpart F, G, and H apply to each affected facility that is part of a process unit that produces one of the listed organic chemicals as a product, co-product, by-product, or intermediate, except as described. Unit 1 and Unit 7 are the only process units identified at this plant which produces the affected organic chemicals as described.

5. The Company conducted a PM demonstration submitted 7/25/14 and the hourly PM limits cannot be exceeded controlled. Equipment controlled by C12, C13, C17, and C24 can exceed the limits uncontrolled.

Emission Unit U3: Liquid Resin Production

Emission Unit Description: Manufacture of Liquid Resin

U3 Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.06	Standards of Performance for New Indirect Heat Exchangers	1 through 8
7.12	Standard of Performance for New Storage Vessels for Volatile Organic Compounds	1 through 5
7.22	Standard of Performance for New Volatile Organic Materials Loading Facilities	1 through 5
7.25	Standard of Performance for New Sources Using Volatile Organic Materials	1 through 5
40 CFR 60 Subpart A	General Provisions	60.1 through 60.19
40 CFR 60 Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	60.40c through 60.43c; and 60.48c
40 CFR 68	Chemical Accident Prevention Provisions	Subparts A through H

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	All
5.01	General Provisions	1 through 4
5.15	Chemical Accident Prevention Provisions	1
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
7.02	Federal New Source Performance Standards Incorporated by Reference	1, 2, 3.1, 3.10, 3.11, 4, 5

U3 Equipment:

ID	Description	Applicable Requirement(s)	Control Device	Stack ID
E192	Reactor Line J Reactor 7000 gal (R-225J) 1996	STAR 5.15 7.25	C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E193	Reactor Line J Condenser (E-225J) 1996		C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E194	Reactor Line J Distillate Receiver	STAR	C4 (LRU Boiler (E246))	S110

ID	Description	Applicable Requirement(s)	Control Device	Stack ID
	Storage Tank 450 gal (V-225J) 1996	5.15 7.12	or C7 (LRU CTO (E292)) for Vacuum Distillates/ N/A for Atmospheric Distillates	or S118 for Vacuum/ S-DR-V226J for Atmospheric
E195	Reactor Line K Reactor 16000 gal (R-225K) 1996	STAR 5.15 7.25	C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E196	Reactor Line K Condenser (E-225K) 1996		C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E197	Reactor Line K Distillate Receiver Storage Tank 450 gal (V-225K) 1996	STAR 5.15 7.12	C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292)) for Vacuum Distillates/ N/A for Atmospheric Distillates	S110 or S118 for Vacuum/ S-DR-V226K for Atmospheric
E198	Reactor Line L Reactor 16000 gal (R-225L) 1996	STAR 5.15 7.25	C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E199	Reactor Line L Condenser (E-225L) 1996		C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E200	Reactor Line L Distillate Receiver Storage Tank 450 gal (V-225L) 1996	STAR 5.15 7.12	C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292)) for Vacuum Distillates/ N/A for Atmospheric Distillates	S110 or S118 for Vacuum/ S-DR-V226L for Atmospheric
E201	Reactor Line M Reactor 20000 gal (R-225M) 1996	STAR 5.15 7.25	C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E202	Reactor Line M Condenser (E-225M) 1996		C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E203	Reactor Line M Distillate Receiver Storage Tank 450 gal (V-225M) 1996	STAR 5.15 7.12	C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292)) for Vacuum Distillates/ N/A for Atmospheric Distillates	S110 or S118 for Vacuum/ S-DR-V226M for Atmospheric
E204	Vacuum Pump (K-225-1) 1996	STAR 5.15 7.25	C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118

ID	Description	Applicable Requirement(s)	Control Device	Stack ID
E205	Vacuum Pump (K-225-2) 1996		C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E206	Vacuum Pump (K-225-3) 1996		C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E207	Vacuum Pump (K-225-4) 1996		C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E208	Vacuum Pump (K-225-5) 1996		C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E209	Vacuum Pump Separator 33 gal (V-225-1) 1996		C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E210	Vacuum Pump Separator 33 gal (V-225-2) 1996	STAR 5.15 7.25	C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E211	Vacuum Pump Separator 33 gal (V-225-3) 1996		C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E212	Vacuum Pump Separator 33 gal (V-225-4) 1996		C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E213	Vacuum Pump Separator 33 gal (V-225-5) 1996		C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E214	Vacuum Pump Seal for K-225-1 1999		NA	S65
E215	Vacuum Pump Seal for K-225-2 1999		NA	S65
E216	Vacuum Pump Seal for K-225-3 1999		NA	S65
E217	Vacuum Pump Seal for K-225-4 1999		NA	S65
E218	Vacuum Pump Seal for K-225-5 1999		NA	S65
E219	Centrifuge Feed Tank 15000 gal (V-232) 1996		NA	S80
E220	Centrifuge #1 3000 gal (M-243) 1996		NA	S66

ID	Description	Applicable Requirement(s)	Control Device	Stack ID
E221	Deaeration Tank 1 150 gal (V-231) 1996		NA	S66
E222	Centrifuge #2 3000 gal (M-242) 1996		NA	S66
E223	Deaeration Tank 2 150 gal (V-230) 1996		NA	S66
E224	Centrifuge #3 3000 gal (M-241) 1996		NA	S66
E225	Deaeration Tank 3 150 gal (V-229) 1996		NA	S66
E226	Sludge Control Feeder 25 gal 1996		C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E227	Zinc Sludge Drum Filling (M-133) 1996		NA	S66
E228	Resole Distillate Hold Tank 25000 gal (V-236) 1996	STAR 5.15 7.25	NA	S83
E229	Centrifuge Hold Tank 20000 gal (V-237) 1996		NA	S84
E230	Rinse Water Storage Tank 25000 gal (V-238) 1996	STAR 5.15 7.12	NA	S85
E231	Seal Water Storage Tank 1500 gal (V-239) 1996		C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E232	Phenolic Urethane Tank 18000 gal (V-233) 1996		NA	S81

ID	Description	Applicable Requirement(s)	Control Device	Stack ID
E233	Phenolic Urethane Tank 18000 gal (V-234) 1996		NA	S82
E235	Isocyanate Blend Storage Tank 10000 gal (V-241) 1996		NA	S111
E236	Urethane Part III Mix Tank 1000 gal (V-242) 1996	STAR 7.25	NA	S111
E237	Urethane Part III Mix/Packaging system 1996		NA	S111
E238	Part 1 Silane Addition System 1996		NA	S111
E240	LRU Tote Blend System 1996	STAR 5.15 7.25	NA	S111
E241	Hydrofluoric Acid Addition System 1996	STAR	NA	S87
E242	BPAC Truck Loading	STAR 7.22 7.25	C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E243	Resole Tote/Drum Loading Line 1996	STAR 7.25	NA	S111
E244	Part II Tote/Drum Loading Line 1996		NA	S111
E245	Part I Tote/Drum Loading Line 1996	STAR 5.15 7.25	NA	S111
E246	LRU Boiler, natural gas fired 62.4 MMBtu/hr (K-802C) 1996	STAR 7.06 40 CFR 60 Subpart Dc	NA	S110
E249	50% Formaldehyde Storage Tank 108000 gal (V-050) 1996	STAR 5.15 7.12	C5 (Catalytic Oxidizer)	S135
E250	50% Formaldehyde Storage Tank 108000 gal (V-051) 1996		C5 (Catalytic Oxidizer)	S135
E251	Phenol Storage Tank 90000 gal (V-125) 1996	STAR 7.12	NA	S67

ID	Description	Applicable Requirement(s)	Control Device	Stack ID
E252	Phenol Storage Tank 90000 gal (V-126) 1996		NA	S68
E253	DBE Storage Tank 30000 gal (V-127) 1996		NA	S69
E254	DOA Storage Tank (V-128) 9800 gal 1996		NA	S70
E255	Methyl Ester Storage Tank 9800 gal (V-129) 1996		NA	S71
E256	Furfuryl Alcohol Storage Tank 30000 gal (V-130) 1996		NA	S72
E257	SS150ND Storage Tank 30000 gal (V-131) 1996		NA	S73
E258	SS205 Storage Tank 30000 gal (V-132) 1996		NA	S74
E259	25% Zinc Acetate Solution Storage Tank 12000 gal (V-133) 1996	IA	NA	S75
E260	Isocyanate Storage Tank 30000 gal (V-134) 1996	STAR 7.12	NA	S76
E261	Kerosene Storage Tank 9800 gal (V-135) 1996		NA	S77
E262	Isocyanate Storage Tank 30000 gal (V-137) 1996		NA	S78
E263	Vycel-U Storage Tank 9800 gal (V-139) 1996		NA	S79

ID	Description	Applicable Requirement(s)	Control Device	Stack ID
E264	Phenolic Urethane Storage Tank 25800 gal (V-625) 1996		NA	S88
E265	Phenolic Urethane Storage Tank 25800 gal (V-626) 1996	STAR 5.15 7.12	NA	S89
E266	Phenolic Urethane Storage Tank 25800 gal (V-627) 1996		NA	S90
E267	Phenolic Urethane Storage Tank 25800 gal (V-628) 1996		NA	S91
E268	Phenolic Urethane Storage Tank 25800 gal (V-629) 1996		NA	S92
E269	Phenolic Urethane Storage Tank 25800 gal (V-630) 1996		NA	S93
E270	Phenolic Urethane Resole Storage Tank 18000 gal (V-631) 1996		NA	S94
E271	Phenolic Urethane/Resole Storage Tank 18000 gal (V-632) 1996		NA	S95
E272	Phenolic Urethane/Resole Storage Tank 18000 gal (V-633) 1996		NA	S96
E273	Phenolic Urethane/Resole Storage Tank 18000 gal (V-634) 1996		NA	S97
E274	Phenolic Urethane/Resole Storage Tank 18000 gal (V-635) 1996		NA	S98

ID	Description	Applicable Requirement(s)	Control Device	Stack ID
E275	Phenolic Urethane/Resole Storage Tank 18000 gal (V-636) 1996		NA	S99
E276	Phenolic Urethane/Resole Storage Tank 18000 gal (V-637) 1996		NA	S100
E277	Phenolic Urethane/Resole Storage Tank 18000 gal (V-638) 1996		NA	S101
E278	Phenolic Urethane/Resole Storage Tank 18000 gal (V-639) 1996		NA	S102
E279	Phenolic Urethane/Resole Storage Tank 18000 gal (V-640) 1996	STAR 5.15 7.12	NA	S103
E280	Isocyanate Blend Liquid Storage Tank 10000 gal (V-641) 1996	STAR 7.12	NA	S104
E281	Isocyanate Blend Liquid Storage Tank 10000 gal (V-642) 1996		NA	S105
E282	Phenolic Urethane/Resole Storage Tank 18000 gal (V-643) 1996	STAR 5.15 7.12	NA	S106
E283	Phenolic Urethane/Resole Storage Tank 18000 gal (V-644) 1996		NA	S107
E284	Phenolic Urethane/Resole Storage Tank 18000 gal (V-645) 1996		NA	S108

ID	Description	Applicable Requirement(s)	Control Device	Stack ID
E285	Glycol/Water Storage Tank 25800 gal (V-825) 1996	STAR 7.12	NA	S109
E288	Southwest Truck Loading Station 1996	STAR 5.15 7.22	NA	S115
E289	Southeast Truck Loading Station 1996		NA	S116
E290	North Product Loading Truck Station 1996		NA	S114
E291	South Tank farm Truck Loading Station 1996		NA	S117
E336	Methanol Column 900 gal (C-278) 1997	STAR 5.15 7.25	C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E337	Condenser (E-275) 1997		C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E338	Recovered Methanol Storage Tank 25000 gal (V-275) 1997	STAR 7.12	C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E339	Urethane Distillate Storage Tank 25000 gal (V-276) 1997	STAR 5.15 7.12	C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E340	Tank Accumulator 100 gal (V-277) 1997	STAR 5.15 7.25	C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118
E444	SS606 Storage Tank 30000 gal (V-140) 2002	STAR 7.12	NA	S157
E445	SS100 Storage Tank 10000 gal (V-141) 2002		NA	S158
E446	Isocyanate Liquid Storage Tank 25000 gal (V-142) 2002		NA	S159
E447	Isocyanate Liquid Storage Tank 25000 gal (V-143) 2002		NA	S160

ID	Description	Applicable Requirement(s)	Control Device	Stack ID
E451	Liquid Resin Storage Tank 15000 gal (V-646) 2002	STAR 7.12	NA	S164
E452	Liquid Resin Storage Tank 15000 gal (V-647) 2002		NA	S165
E458	North Railcar Loading/Unloading Station 2007	STAR 7.22 7.25	NA	S171
E459	Benzene Phosphorus Oxychloride Storage Tank 200 gal (V-147) 2002	IA	NA	S172
E460	Phosphorus Oxychloride Storage Tank 200 gal (V-148) 2002	IA	NA	S173
E461	Orthophthaloyl Chloride Storage Tank 250 gal (V-149) 2002	IA	NA	S174
E469	Supersack Conditioner	IA	NA	NA
E484	BPAC Storage Tank 40000 gal (V-136) 2002	STAR 7.12	C4 (LRU Boiler (E246)) or C7 (LRU CTO (E292))	S110 or S118

U3 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. For Emission Points (E242, E288, E289, E290, E291, and E458), when loading, the owner or operator of any loading facility from which 20,000 gallons or more of "volatile organic materials" are loaded in any one day shall not load any volatile organic materials into any tank, truck, trailer, or railroad car from any loading facility unless such loading facility is equipped with a device which reduces the emissions of all hydrocarbon vapors and gases by at least 90% by weight, and which is properly installed, in good working order, and in operation. Loading shall be accomplished in such a manner that all displaced vapor and air will be vented only to the vapor recovery system. Measures shall be taken to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected. (Regulation 7.22, section 3.2) (See Comment 1)

iii. For Storage Tanks (E194, E197, E200, E203, E230-E233, E249-E287, E339, and E444-E457) the owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessels, unless the storage tank is equipped with a permanent submerged fill pipe. (Regulation 7.12, Section 3.3).

iv. For Storage Tank (E484), the owner or operator shall equip the storage vessel with a floating roof, vapor recovery system, or their equivalent (Regulation 7.12, section 3.1) or duct the emissions from the Storage Tank (E484) to either the LRU Boiler (C4) or LRU Catalytic Oxidizer (C7). (See Comment 8)

v. For the LRU Catalytic Thermal Oxidizer (C7), all three hour periods of operation the average inlet temperature shall be maintained such that it is no more than 28 degrees Celsius (50.4 degrees Fahrenheit) below the average inlet temperature reported in the latest performance test report (currently 887°F based on Stack Test dated July 2002 at a destruction efficiency of 73.67% VOC) until a new performance test report has been approved by the District at which time the destruction efficiency and operating conditions will be replaced by the documented test conditions and results.. (Regulation 2.16, section 4.1.1)

vi. For the MO Catalytic Thermal Oxidizer (C5) see Unit 7.

b. **HAP**

See Plant-Wide Unit Specific Conditions.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall not exceed the calendar year TAC limits listed in the following table for the listed Emission Points and Stack ID. (Regulation 5.21 Section 4.3) (See Comment 4)

Equipment ID	Stack ID	Equipment Name	TAC Pollutant	Limit (ton/year)
E192	S110	Reactor Line J: Reactor	Triethylamine	1.6800*
			Formaldehyde	0.0185*
			Styrene	0.4080*
E195	S110	Reactor Line K: Reactor	Triethylamine	4.3597
			Formaldehyde	0.0185*
			Styrene	0.9776
E198	S110	Reactor Line L: Reactor	Formaldehyde	0.0185*

Equipment ID	Stack ID	Equipment Name	TAC Pollutant	Limit (ton/year)
E201	S110	Reactor Line M: Reactor	Formaldehyde	0.0185*
E219	S80	Centrifuge Feed Tank	Naphthalene	0.0236
E229	S84	Centrifuge Feed Tank	Naphthalene	0.0236
E235	S111	Isocyanate Blend Storage Tank (previously Urethane Part II Mix Tank)	Naphthalene	0.0111
E242	S110	BPAC Truck Loading	Phenol	48.0*
E244	S111	Part II Tote/Drum Loading Line	Naphthalene	0.0111
E246	S110	LRU Boiler	Formaldehyde	0.0201
E246	S110	LRU Boiler	Cadmium	0.000295
E249	S135	50% Formaldehyde Storage Tank	Formaldehyde	0.0185*
E250	S135	50% Formaldehyde Storage Tank	Formaldehyde	0.0185*
E288	S115	Southwest Truck Loading Station	Formaldehyde	0.0185*
			Phenol	48.0*
			Methanol	4800*
			Biphenyl	0.1032*
			Naphthalene	0.0236*
			Hydrofluoric Acid	3.36*
			MDI	0.144*
E289	S116	Southeast Truck Loading Station	Formaldehyde	0.0185*
			Phenol	48.0*
			Methanol	4800*
			Biphenyl	0.1032*
			Naphthalene	0.0236*
			Hydrofluoric Acid	3.36*
			MDI	0.144*
E290	S114	North Product Loading Truck Station	Formaldehyde	0.0185*
			Phenol	48.0*
			Methanol	4800*
			Biphenyl	0.1032*
			Naphthalene	0.0236*
			Hydrofluoric Acid	3.36*
			MDI	0.144*
E291	S117	South Tank farm Truck Loading Station	Formaldehyde	0.0185*
			Phenol	48.0*
			Methanol	4800*
			Biphenyl	0.1032*
			Naphthalene	0.0236*
			Hydrofluoric Acid	3.36*
			MDI	0.144*
E192-E213, E226, E231, E242, E336-E340,	S118	Equipment when Controlled by Catalytic Oxidizer combined	Formaldehyde	0.1226

Equipment ID	Stack ID	Equipment Name	TAC Pollutant	Limit (ton/year)
and E484				

*De Minimis

d. **PM**

For LRU boiler (E246), the owner or operator shall not cause to be discharged into the atmosphere from that affected facility particulate matter in excess of 0.144 pounds per million BTU actual total heat input based on a three hour average. (Regulation 7.06, section 4.1.4) (See Comment 2)

e. **Opacity**

i. For Emission Point (E246):

1) No owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility, emissions which exhibit greater than 20% opacity except: (See Comment 3) (Regulation 7.06, section 4.2)

2) For indirect heat exchangers with a heat input capacity of less than 250 million BTU/hr, a maximum of 40% opacity shall be permissible for not more than two consecutive minutes in any 60 consecutive minutes; (Regulation 7.06, section 4.2.1)

3) For indirect heat exchangers with heat input capacity of less than 250 million BTU/hr, a maximum of 40% opacity shall be permissible for not more than six consecutive minutes in any 60 consecutive minutes during cleaning the fire box or blowing soot; (Regulation 7.06, section 4.2.2) or

4) For emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations. (Regulation 7.06, section 4.2.3)

f. **SO_2**

For Emission Point (E246), the owner or operator shall not cause to be discharged into the atmosphere from that affected facility sulfur dioxide in excess of 1.0 pounds per million BTU actual total heat input based on a three hour average. (Regulation 7.06, section 5.1.1) (See Comment 2)

S2. **Monitoring and Record Keeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. For Emission Points (E242, E288, E289, E290, E291, and E458), the owner or operator shall keep a daily record of the amount of VOM in gallons loaded into any tank, truck, trailer, or railroad car.

iii. The owner or operator of storage vessels (E194, E197, E200, E203, E230-E233, E249-E287, E338, E339, E444, E445, E446, E447, E451, E452, and E484) shall maintain records of the material stored including vapor pressure and, if the contents of the storage vessels are changed, a record shall be made of the new contents, the new vapor pressure, and the date of the change adequate to demonstrate compliance with the standard.

iv. The owner or operator shall keep a record that shows if the storage vessels are equipped with a submerged fill pipe. Submerged fill pipe means any fill pipe the discharge of which is entirely

submerged when the liquid level is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean every fill pipe the discharge opening of which is entirely submerged when the liquid level is 2 times the fill pipe diameter above the bottom of the

v. For the Catalytic Thermal Oxidizer (C7), the owner or operator shall continuously monitor and record the temperature of the gas stream immediately before the catalyst bed while any process gas stream is being vented to it. Continuous monitoring and recording of the combustion temperature is defined as a frequency of four points equally spaced for each hour as outlined in 40 CFR 63.2 General Provisions.

vi. When the Catalytic Thermal Oxidizer (C7) is operating and any process gas stream is being vented to it, the owner or operator shall maintain continuous inlet temperature records. The continuous data recorder shall record at least 95% of the temperature records. The owner or operator shall monthly calculate and record the percentage of time that temperature data was recorded for that month while any process gas was being vented to it or make a declaration that the catalytic oxidizer was not used during that month.

vii. For the Catalytic Thermal Oxidizer (C7), the owner or operator shall monthly conduct and record a visual inspection of the oxidizer system including the burner assembly and fuel supply lines for problems. If any problems are found the owner or operator shall initiate corrective action consistent with the manufacturer's recommendations.

viii. For the Catalytic Thermal Oxidizer (C7), the owner or operator shall annually, conduct and record an internal visual inspection of the catalyst bed to check for channeling, abrasion and settling. If problems are found, the owner or operator shall take initiate corrective actions consistent with the manufacturer's recommendations and conduct a catalyst activity check within 30 days of completing the corrective actions. The annual inspection shall be conducted each calendar year with a period of no less than three (3) months between inspections. If catalyst is replaced in accordance with the manufacturer's recommendations a new performance test (as described in Appendix B – Control Device Efficiencies and Determination Methods of this permit) may need to be conducted within six (6) months of the date of catalyst replacement per S2.a.xii.

ix. For the Catalytic Thermal Oxidizer (C7), the owner or operator shall monthly conduct and record an external visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If any problems are found the owner or operator shall initiate corrective action consistent with the manufacturer's recommendations and a new performance test may need to be conducted within six (6) months of the initial observation. If catalyst is replaced in accordance with the manufacturer's recommendations a new performance test (as described in Appendix B – Control Device Efficiencies and Determination Methods of this permit) may need to be conducted within six (6) months of the date of catalyst replacement per S2.a.xii.

x. For the Catalytic Thermal Oxidizer (C7), the owner or operator shall maintain records, monthly, of the results of all visual inspections. Records of the results shall include the date of the inspection, the name of the person conducting the inspection, whether or not problems including but not limited to structural damage, channeling, abrasion, or settling were observed, and what if any corrective action was performed. If the catalytic oxidizer is not operated during a given month, then no visual inspections need to be performed and a negative declaration shall be entered in the record.

xi. For the Catalytic Thermal Oxidizer (C7), the owner or operator shall annually conduct and record a sampling and analysis of the catalyst activity (i.e., conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures approved by the District on 06/17/2013. Sampling shall be conducted each calendar year at a period of no less than three (3) months apart. Results of the sampling and analysis shall be completed with sixty (60) days of the date the sample was taken. Records shall include the date the sample was taken, the name of the person taking the sample, the date analysis of the catalyst activity was completed, the results of the analysis including conversion efficiency, and what if any corrective action was performed. If

catalyst is replaced in accordance with the manufacturer's recommendations a new performance test (as described in Appendix B – Control Device Efficiencies and Determination Methods of this permit) may need to be conducted within six (6) months of the date of catalyst replacement per S2.a.xii.

xii. If the catalyst bed is replaced and is not of like or better kind and quality as the old catalyst, then a new performance test must be conducted within six (6) months of the catalyst change to determine destruction efficiency according to Appendix B – Control Device Efficiencies and Determination Methods of this permit. If the catalyst bed is replaced and the replacement catalyst is of like or better kind and quality as the old catalyst, then a new performance test to determine destruction efficiency is not required and the previously established operating limits shall continue to be used for the Catalytic Oxidizer (C7).

xiii. For the MO Catalytic Thermal Oxidizer (C5) see Unit 7.

b. **HAP**

See Plant-Wide Unit Specific Conditions.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall monthly calculate and record the year to date TAC emissions for each month in the reporting period to determine the status of compliance for the Emission Points and corresponding Stack ID listed in the table of S1.c.ii.

d. **PM**

There are no compliance monitoring or recordkeeping requirements. (See Comment 2)

e. **Opacity**

There are no compliance monitoring or recordkeeping requirements. (See Comment 3)

f. **SO_2**

The owner or operator of boiler (E246) shall record and maintain records of the amount of each fuel combusted during each calendar month. (40 CFR 60.48c(g)(2)) See Comment 2

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

The owner or operator shall include, at a minimum, Emission Unit and Emission Point identification with the following information in the semi-annual compliance monitoring reports required in the Plant-Wide Unit, unless otherwise noted. (See General Condition 14)

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall clearly identify all deviations from loading and storage requirements of S1.a.ii through S1.a.iv in the semi-annual reports. If no deviations occur in that reporting period then the owner or operator shall report a negative declaration.

iii. The owner or operator shall report the following information regarding the Catalytic Thermal Oxidizer (C7):

1) Identification of any failure to perform the required maintenance;

2) Identification of all periods where the temperature deviated from the standard on a three hour average;

3) The percentage of time that data was recorded for each month; and

4) Description of any corrective action taken for each exceedance.

iv. For the MO Catalytic Thermal Oxidizer (C5) see Unit 7.

b. **HAP**

See Plant-Wide Unit Specific Conditions.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall report the following information regarding the emission limits listed in the table of S1.c.ii:

1) The year to date TAC emissions from each month in the reporting period from emission points listed to determine compliance with corresponding emission limits listed;

2) Identification of all periods of exceedance of the TAC emission limits; and

3) Description of any corrective action taken for each exceedance.

d. **PM**

There are no compliance recordkeeping requirements. (See Comment 2)

e. **Opacity**

There are no compliance recordkeeping requirements. (See Comment 3)

f. **SO_2**

There are no compliance recordkeeping requirements. (See Comment 2)

U3 Comments

1. Regulation 7.22 applies only to the loading of volatile organic materials (VOMs), which are any volatile organic compounds (VOCs) having a true vapor pressure of 1.5 psia or greater under actual storage conditions. VOCs which are not VOMs are not subject to this regulation. There are no standards if each loading facility loads less than 200 gallons per day of VOMs.
2. A one-time PM and SO_2 compliance demonstration has been performed for the boiler, using AP-42 emission factors and combusting natural gas, and the emission standards cannot be exceeded. Therefore, there are no monitoring, record keeping, and reporting requirements for this boiler with respect to PM and SO_2 emission limits.
3. The District has determined that using a natural gas fired boiler will inherently meet the 20% opacity standard. Therefore, the company is not required to perform periodic monitoring to demonstrate compliance with the opacity standard.
4. TAC limits are based on EA Demonstration submitted by the company and received by the District on 2/14/2014. This unit has TAC emission standards since its EA Demonstration was based on controlled PTE. If the controlled PTE for the TAC is less than de minimis level, De Minimis is listed as the basis of the limit. If the controlled PTE for the TAC is greater than de minimis level, modeling results were used to calculate risk value to compare to the EA Goals. In this case, modeled emission rates are used as the basis of the limit.
5. The Source submitted a permit application for re-tubing the LRU Boiler (E246) on 12/20/2013 removing #2 Fuel Oil as a secondary fuel for the LRU Boiler (E246). Per 40 CFR 63.11195(e), a gas-fired boiler is not subject to 40 CFR 63 Subpart JJJJJJ.
6. 40 CFR 60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels, does not apply per 40 CFR 60.110b(b), since the maximum true vapor pressure of Phenol is less than 3.5 kPa (0.507psia).
7. The Company must submit a construction permit application in order to resume use of this equipment for the handling of VOC, HAP, TAC or any other materials which may contain criteria pollutants.

8. The District has determined that ducting the emissions from the Storage Tank (E484) to either the LRU Boiler (C4) or LRU Catalytic Oxidizer (C7) is equivalent to the floating roof or vapor recovery system requirement of District Regulation 7.12.

Emission Unit U4: Specialty Resin Production

Emission Unit Description: Manufacture of Specialty Resins

U4 Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1 through 3
7.12	Standard of Performance for New Storage Vessels for Volatile Organic Compounds	1 through 5
7.22	Standard of Performance for New Volatile Organic Materials Loading Facilities	1 through 5
7.25	Standard of Performance for New Sources Using Volatile Organic Materials	1 through 5
40 CFR 68	Chemical Accident Prevention Provisions	Subparts A through H

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
1.18	Rule Effectiveness	1 through 3
5.00	Definitions	All
5.01	General Provisions	1 through 4
5.15	Chemical Accident Prevention Provisions	1
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

U4 Equipment:

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E293	R-100 Weigh Tank 40 gal (V-100) 1987	STAR 5.15 7.25	SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E294	R-100 Reactor 100 gal (R-100) 1981		SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E295	R-100 Process Condenser (E-100) 1981		SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E296	R-100 Distillate Receiver 80 gal (V-101) 1990		SP RTO (Specialty Plant Recuperative Thermal Oxidizer) for Vacuum Distillates/ NA for Atmospheric Distillates	S119 for Vacuum/ S-DR-V101for Atmospheric

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E297	R-150 Weigh Tank 60 gal (V-150) 1987		SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E298	R-150 Reactor 150 gal (R-150) 1981	STAR 5.15 7.25	SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E299	R-150 Process Condenser (E-150) 1981		SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E300	R-150 Distillate Receiver 120 gal (V-151) 1990		SP RTO (Specialty Plant Recuperative Thermal Oxidizer) for Vacuum Distillates/ NA for Atmospheric Distillates	S119 for Vacuum/ S-DR-V151for Atmospheric
E301	Recycle Formaldehyde Tote 250 gal 1990		NA	S125
E302	R-800 Weigh Tank 300 gal (V-800) 1987		SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E303	R-800 Reactor 800 gal (R-800) 2008		SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E304	R-800 Process Condenser (E-800) 1981		SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E305	R-800 Distillate Receiver 600 gal (V-801) 1990		SP RTO (Specialty Plant Recuperative Thermal Oxidizer) for Vacuum Distillation/ NA for Atmospheric Distillates	S119 for Vacuum/ S-DR-V801 for Atmospheric
E306	800 Drop Pan (M-501) 1990		SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E307	Phenol Storage Tank 600 gal 1990	STAR 7.12	NA	SPST
E309	Formaldehyde Storage Tank 2000 gal (V-121) 2003	STAR 5.15 7.12	SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E310	37/11 Formaldehyde Storage Tank 10000 gal 1990		NA	NA

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E311	SIHI Vacuum Compressor (K-015) 2001	STAR 5.15 7.25	SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E312	Nash Vacuum Compressor (K-011) 1990		SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E315	Nash Compressors Seal Water Pot 250 gal (V-805) 1990		SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E316	Nash Vacuum Compressor (K-012) 1990	STAR 5.15 7.25	SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E317	Nash Vacuum Compressor (K-016) 1990		SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E319	Distillate Loading Station 1990	STAR 5.15 7.22	NA	S129
E320	Specialty Plant Product Loading 1990		NA	S130
E321	Cresol Distillate Tank 20000 gal (V-203) 2007	STAR 5.15 7.12	NA	S128
E324	1500 Flaker Belt (M-401) 2003	STAR 7.25 7.08	SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E325	800 Resin Crusher (M-500) 1990	7.08	C8 (Specialty Plant Resin Crusher Dust Collector F-500)	S120
E327	50% Formaldehyde Weigh Tank 1160 gal (V-1502) 1994	STAR 7.25	SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E328	R-1500 Formaldehyde Weigh Tank 1160 gal (V-1501) 1994	STAR 5.15 7.25	SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E329	R-1500 Reactor 1500 gal (R-1500) 1994		SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E330	R-1500 Condenser (E-1500) 1993		SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E331	R-1500 Distillate Receiver 1160 gal (V-1503) 1993		SP RTO (Specialty Plant Recuperative Thermal Oxidizer)) for Vacuum Distillation/ NA for Atmospheric Distillates	S119 for Vacuum/ S-DR-1503 for Atmospheric
E332	R-1500 Distillate Phase Separator 35 gal (V-1504) 2013		SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E334	Blend Reflake Tank 3000 gal (V-300) 1989	7.08	NA	S122
E335	Fume Hood in Warehouse 1 1990	STAR 7.25	NA	S124
E474	1500 Drop Pan (M-406)	STAR 5.15 7.25	SP RTO (Specialty Plant Recuperative Thermal Oxidizer)	S119
E492	1500 Flake Crusher (M-404)	7.08	CDC401 (Specialty Plant Resin Crusher Dust Collector DC-401)	S175
E493	1500 Flake Hopper (M-405)	7.08	CDC401 (Specialty Plant Resin Crusher Dust Collector DC-401)	S175
E494	1500 Bucket Conveyor (M408)	7.08	CDC401 (Specialty Plant Resin Crusher Dust Collector DC-401)	S175
E495	1500 Drop Pan Crusher (M-409)	7.08	CDC401 (Specialty Plant Resin Crusher Dust Collector DC-401)	S175

U4 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. For Emission Points (E319 and E320), when loading, the owner or operator of any loading facility from which 20,000 gallons or more of "volatile organic materials" are loaded in any one day shall not load any volatile organic materials into any tank, truck, trailer, or railroad car from any loading facility unless such loading facility is equipped with a device which reduces the emissions of all hydrocarbon vapors and gases by at least 90% by weight, and which is properly installed, in good working order, and in operation. Loading shall be accomplished in such a manner that all displaced vapor and air will be vented only to the vapor recovery system. Measures shall be taken to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected. (Regulation 7.22, section 3.2) (See Comment 1)

iii. For Emission Points (E307, E309, E310, and E321), the owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessels, unless the storage tank is equipped with a permanent submerged fill pipe. (Regulation 7.12, section 3) (See Comment 4)

b. **HAP**

See Plant-Wide Unit Specific Conditions.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall not exceed the calendar year TAC limits listed in the following table for the listed Emission Points and Stack ID. (Regulation 5.21 Section 4.3) (See Comment 2)

Equipment ID	Stack ID	Equipment Name	TAC Pollutant	Limit (ton/year)
E293	S119	R-100 Weigh Tank	Formaldehyde	0.0185*
E294	S119	R-100 Reactor	Styrene	0.4080*
E297	S119	R-150 Weigh Tank	Formaldehyde	0.0185*
E298	S119	R-150 Reactor	Styrene	0.4080*
E302	S119	R-800 Weigh Tank	Formaldehyde	0.0185*
E327	S119	50% Formaldehyde Weigh Tank	Formaldehyde	0.0185*
E328	S119	R-1500 Formaldehyde Weigh Tank	Formaldehyde	0.0185*
E329	S119	R-1500 Reactor	Formaldehyde	0.0185*
			Styrene	0.4080*
			Sulfuric Acid	0.2400*

*De Minimis

iii. For the Recuperative Thermal Oxidizer (SP RTO), the owner or operator shall operate the oxidizer with a minimum residence time of 0.50 seconds and a combustion temperature above the minimum temperature of 1350°F on a three hour average and assume a 90.85% destruction efficiency for VOC(established by Stack Test dated December 2010) until an updated performance test report has been approved by the District at which time the destruction efficiency and operating conditions will be replaced by the documented test conditions and results. (Regulation 2.16, section 4.1.1)

d. **PM**

i. For Emission Point (E324, E492, E493, E494 and E495), the owner or operator shall not cause to be discharged into the atmosphere PM emissions that exceed 9.74 lb/hr each based on actual operating hours in a calendar day. (District Permit 15-03-C) (See Comment 5)

ii. For Emission Point (E325), the owner or operator shall not cause to be discharged into the atmosphere PM emissions that exceed 7.09 lb/hr based on actual operating hours in a calendar day. (District Permit 172-06-C) (See Comment 5)

iii. For Emission Point (E334), the owner or operator shall not cause to be discharged into the atmosphere PM emissions that exceed 18.84 lb/hr based on actual operating hours in a calendar day. (Regulation 7.08, section 3.1.2) (See Comment 5)

iv. The owner or operator shall utilize controls at all times the process equipment is in operation and shall, to the extent, practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 2.16, section 4.1.1) (See Comments 5)

v. For Control Device (C8 – Specialty Plant Resin Crusher Dust Collector (F-500)), the owner or operator shall maintain the pressure drop across the fabric filter is between 1 and 6 inches H_2O.

e. **Opacity**

The owner or operator shall not cause the emission into the open air of particulate matter from emission points (E324, E325, and E334) that equals or exceeds 20% opacity. (Regulation 7.08, section 3.1.1)

S2. **Monitoring and Record Keeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. For Emission Point (E319 and E320), the owner or operator shall keep a daily record of the amount of VOM in gallons loaded into any tank, truck, trailer, or railroad car.

iii. The owner or operator of storage vessels (E307, E309, E310, and E321) shall maintain records of the material stored including vapor pressure and, if the contents of the storage vessels are changed, a record shall be made of the new contents, the new vapor pressure, and the date of the change adequate to demonstrate compliance with the standard.

iv. The owner or operator shall keep a record that shows if the storage vessels are equipped with a submerged fill pipe. Submerged fill pipe means any fill pipe the discharge of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean every fill pipe the discharge opening of which is entirely submerged when the liquid level is 2 times the fill pipe diameter above the bottom of the tank.

v. The owner or operator shall keep a record of the number of times and duration that the vent stream by-passes control device (SP RTO).

b. **HAP**

See Plant-Wide Unit Specific Conditions.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall monthly calculate and record the year to date TAC emissions for each month in the reporting period to determine the status of compliance for the Emission Points and corresponding Stack ID listed in the table of S1.c.ii.

iii. For the Recuperative Thermal Oxidizer (SP RTO), the owner or operator shall continuously monitor the combustion temperature. The combustion temperature monitoring device shall be equipped with a continuous recorder. Continuously monitor and record the combustion temperature is defined as a frequency of four points equally spaced for each hour as outlined in 40 CFR 63.2 General Provisions.

iv. All 3 hour periods of operation when the average combustion temperature is below the minimum temperature shall be considered to be uncontrolled with zero percent destruction efficiency. Multiple performance tests can be conducted with various average combustion temperatures and resulting efficiencies for each. Any destruction efficiency achieved shall only be used in emission calculations when the actual recorded three hour average temperature during process operations is greater than or equal to the average combustion temperature documented in a District approved stack test. The minimum temperature is considered to be the lowest temperature for which a District accepted stack test has been performed unless otherwise specified. Stack test results will not be considered applicable after a period of 10 years following the date of the performance test.

v. When the Recuperative Thermal Oxidizer (SP RTO) is operating and processing any process vent stream, the owner or operator shall maintain continuous combustion temperature records. The continuous data recorder shall record at least 95% of the temperature records.

vi. The owner or operator shall keep a monthly record of the hours the process operated and the hours where temperature data was recorded. The owner or operator shall monthly calculate the percentage of time that temperature data was recorded for that month.

d. **PM**

i. For Control Devices (C8) (Fabric Filters), the owner or operator shall daily monitor and record the pressure drop across the fabric filter.

ii. For Control Devices (C8 and CDC401) (Fabric Filters), the owner or operator shall perform monthly visual inspections of the fabric filter to ensure mechanical integrity and proper operation, including pulse air mechanism. Bags (filters) shall be replaced as needed.

iii. The owner or operator shall maintain daily records of any periods of time where the process was operating and the control device was not operating or a declaration at the end of each month that the control device operated at all times that day when the process was operating.

iv. If there is any time that the control device (C8) (Fabric Filter) is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:

1) Date;

2) Start time and stop time;

3) Identification of the control device and process equipment;

4) PM emissions during the bypass in lb/hr;

5) Summary of the cause or reason for each bypass event;

6) Corrective action taken to minimize the extent or duration of the bypass event; and

7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

e. **Opacity**

i. For Emission Points (E324, E325, E334, E492, E493, E494 and E495), the owner or operator shall conduct a monthly one-minute visible emissions survey, during normal operation of the emission points. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

iii. The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

The owner or operator shall include, at a minimum, Emission Unit and Emission Point identification with the following information in the semi-annual compliance monitoring reports required in the Plant-Wide Unit, unless otherwise noted. (See General Condition 14)

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall clearly identify all deviations from loading and storage requirements of S1.a.ii through S1.a.iii in the semi-annual reports. If no deviations occur in that reporting period then the owner or operator shall report a negative declaration.

b. **HAP**

See Plant-Wide Unit Specific Conditions.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall report the following information regarding the emission limits listed in the table of S1.c.ii:

1) The year to date TAC emissions from each month in the reporting period from emission points listed to determine compliance with corresponding emission limits listed;

2) Identification of all periods of exceedance of the TAC emission limits; and

3) Description of any corrective action taken for each exceedance.

iii. For the Regenerative Thermal Oxidizer (SP RTO):

1) Identification of all periods where the temperature is below the standard on a 3 hour average;

2) The percentage of time that data was recorded for each month; and

3) Description of any corrective action taken for each exceedance.

d. **PM**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring report for PM and clearly identify all deviations from permit requirements in the

semi-annual reports. If no deviations occur in that reporting period then the owner or operator shall report a negative declaration:

i. Identification of all periods of exceedance of the PM emission limits;

ii. Identification of all periods of exceedance of the pressure drop ranges,

iii. Identification of all missed visual inspections;

iv. Description of any corrective action taken for each excursion or exceedance;

v. Calculations of the PM emission rate during the times that standards or limits were exceeded;

vi. The following information regarding control device (C8) bypass events:

1) Number of times the PM vent stream bypasses the control device and is vented to the atmosphere;

2) Duration of each bypass to the atmosphere;

3) Calculated pound per hour PM emissions for each bypass; or

4) A negative declaration if no bypasses occurred.

e. **Opacity**

The owner or operator shall clearly identify all deviations from permit requirements in the semi-annual reports. If no deviations occur in that reporting period then the owner or operator shall report a negative declaration.

i. The date, time and results of each Method 9 that exceeded the opacity standard

ii. The number of surveys where visible emissions were observed

iii. Description of any corrective action taken

U4 Comments

1. Regulation 7.22 applies only to the loading of volatile organic materials (VOMs), which are any volatile organic compounds (VOCs) having a true vapor pressure of 1.5 psia or greater under actual storage conditions. VOCs which are not VOMs are not subject to this regulation. There are no standards if each loading facility loads less than 200 gallons per day of VOMs.

2. TAC limits are based on EA Demonstration submitted by the company and received by the District on 2/14/2014. This unit has TAC emission standards since its EA Demonstration was based on controlled PTE. If the controlled PTE for the TAC is less than de minimis level, De Minimis is listed as the basis of the limit. If the controlled PTE for the TAC is greater than de minimis level, modeling results were used to calculate risk value to compare to the EA Goals. In this case, modeled emission rates are used as the basis of the limit.

3. Company correspondence indicates that operations which cause emissions have ceased for the following equipment listed in the table and must submit a construction permit application in order to resume use of the equipment for the handling of VOC, HAP, TAC or any other materials which may contain criteria pollutants.

ID	Description
E308	Phenol Weigh Tank
E314	B Vacuum Stokes Compressor Separator
E318	A Vacuum Stokes Compressor Separator
E322	Storage Tank, 20000 gal 1973
E323	Storage Tank, 20000 gal 1973

4. The 37/11 Formaldehyde Storage Tank (V-500) is piped to the formaldehyde plant tank vent header and the header goes back to the formaldehyde process so that the vapors are re-absorbed into the process. The 37/11 Formaldehyde Storage Tank does not emit to the atmosphere.

5. The Company conducted a PM demonstration submitted 7/25/14 and the hourly PM limit cannot be exceeded controlled. Equipment controlled by C8 can exceed the limit uncontrolled.

Emission Unit U6: Phenol and Methanol Recovery

Emission Unit Description: Phenol and Methanol recovery

U6 Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.12	Standard of Performance for New Storage Vessels for Volatile Organic Compounds	1 through 5
7.25	Standard of Performance for New Sources Using Volatile Organic Materials	1 through 5
40 CFR 68	Chemical Accident Prevention Provisions	Subparts A through H

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	All
5.01	General Provisions	1 through 4
5.15	Chemical Accident Prevention Provisions	1
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

U6 Equipment:

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E341	Process Condenser (E-324) 1994	STAR 5.15 7.25	NA	S133
E343	Process Condenser (E-321) 1994	STAR 5.15 7.25	NA	S133
E344	Recovered Methanol Tank 2500 gal (V-325) 1994	STAR 7.12	NA	S133
E345	York Liquid Extraction Column (C-301) 1978	STAR 5.15 7.25	NA	S132
E346	Butyl Acetate Phenol Column (C-302) with Condenser (E-302) 1978		NA	S132
E347	Stripper Column (C-320) 1994		NA	S133
E348	Methanol Purification Column (C-323) 1994		NA	S133

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E350	Butyl Acetate Hold Tank (V-160) 1994		NA	S132
E351	Butyl Acetate Decanter Tank (V-321) 1994		NA	S133
E352	Reflux Tank/Butyl Acetate Decant Tank (V-322) 1994		NA	S134
E353	Recovered Methanol Tank (C-324) 1994		NA	S178
E500	Recovered Methanol Tanker Truck (8000 gallon)	STAR 5.15 712	NA	S179
E501	Heat Recovery Exchanger (E-326)	IA (See Comment 4)	NA	133
E502	Heat Recovery Exchanger (E-327)	IA (See Comment 4)	NA	133

U6 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. For Storage Tanks (E344 and E500) the owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessels, unless the storage tank is equipped with a permanent submerged fill pipe. (Regulation 7.12, section 3.3).

b. **HAP**

See Plant-Wide Unit Specific Conditions.

c. **TAC**

See Plant-Wide Unit Specific Conditions.

S2. **Monitoring and Record Keeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator of storage vessels (E344 and E500) shall maintain records of the material stored including vapor pressure and, if the contents of the storage vessels are changed, a record shall be made of the new contents, the new vapor pressure, and the date of the change adequate to demonstrate compliance with the standard.

iii. The owner or operator shall keep a record that shows if the storage vessel is equipped with a submerged fill pipe. Submerged fill pipe means any fill pipe the discharge of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean every fill pipe the discharge opening of which is entirely submerged when the liquid level is 2 times the fill pipe diameter above the bottom of the tank.

b. **HAP**

See Plant-Wide Unit Specific Conditions.

c. **TAC**

See Plant-Wide Unit Specific Conditions.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

The owner or operator shall include, at a minimum, Emission Unit and Emission Point identification with the following information in the semi-annual compliance monitoring reports required in the Plant-Wide Unit, unless otherwise noted. (See General Condition 14)

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. For Storage Tanks (E344 and E500), the owner or operator shall clearly identify all deviations from permit requirements in the semi-annual reports. If no deviations occur in that reporting period then the owner or operator shall report a negative declaration.

b. **HAP**

See Plant-Wide Unit Specific Conditions.

c. **TAC**

See Plant-Wide Unit Specific Conditions.

U6 Comments

1. TAC limits are based on EA Demonstration submitted by the company and received by the District on 2/14/2014.

2. Company correspondence indicates that operations which cause emissions have ceased for the following equipment listed in the table and must submit a construction permit application in order to resume use of the equipment for the handling of VOC, HAP, TAC or any other materials which may contain criteria pollutants.

ID	Description
E342	Phenol Recovery Water Tank (V-323), 23000 gal 1994
E349	Recovered Phenol Cooler 1994

3. The provisions of 40 CFR 60 subpart VV, III, and RRR along with 40 CFR 63 subpart F, G, and H apply to each affected facility that is part of a process unit that produces one of the listed organic chemicals as a product, co-product, by-product, or intermediate, except as described. Unit 1 and Unit 7 are the only process units identified at this plant which produces the affected organic chemicals as described.

4. The Heat Recovery Exchangers do not combust any fuel, do not create emissions, and therefore are not defined as indirect heat exchangers.

Emission Unit U7: Formaldehyde Production - Metal Oxide Process

Emission Unit Description: Manufacturing of formaldehyde using the metal oxide process

U7 Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.12	Standard of Performance for New Storage Vessels for Volatile Organic Compounds	1 through 5
7.25	Standard of Performance for New Sources Using Volatile Organic Materials	1 through 5
40 CFR 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels	60.110 through 60.116
40 CFR 60 Subpart VV	Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006	40 CFR 60.480 through 40 CFR 60.489
40 CFR 60 Subpart III	Standards of Performance for Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	40 CFR 60.610 through 40 CFR 60.618
40 CFR 60 Subpart RRR	Standards of Performance for Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	40 CFR 60.700 through 40 CFR 60.708
40 CFR 63 Subpart A	General Provisions	40 CFR 63.1 through 40 CFR 63.15
40 CFR 63 Subpart F	National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry	40 CFR 63.100, 40 CFR 63.101, 40 CFR 63.102, 40 CFR 63.103, 40 CFR 63.104, 40 CFR 63.105, 40 CFR 63.106
40 CFR 63 Subpart G	National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater	40 CFR 63.110 through 40 CFR 63.123, 40 CFR 63.126 through 40 CFR 63.149, 40 CFR 63.151, and 40 CFR 63.152
40 CFR 63 Subpart H	National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks	40 CFR 63.160, 40 CFR 63.161, 40 CFR 63.162, 40 CFR 63.163, 40 CFR 63.168, 40 CFR 63.175, 40 CFR 63.176, 40 CFR 63.180, 40 CFR 63.181, 40 CFR 63.182
40 CFR 68	Chemical Accident Prevention Provisions	Subparts A through H

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	All
5.01	General Provisions	1 through 4
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	1 through 4
5.15	Chemical Accident Prevention Provisions	1
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
7.02	Federal New Source Performance Standards Incorporated by Reference	1 through 5

U7 Equipment:

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E354	Methanol Storage Tank, 1400000 gal (V-00B) 1995	STAR 7.12 40 CFR 60 Subpart Kb 40 CFR 60 Subparts VV, III, & RRR 40 CFR 63 Subpart F, G, and H	Internal Floating Roof	S139
E355	Tank Vent Knockout Pot 60 gal (V-065) 2001	STAR 5.15 7.25 40 CFR 60 Subparts VV, III, & RRR 40 CFR 63 Subpart F, G, and H	C5 (Catalytic Oxidizer)	S135
E356	Air Inlet System (S-1/2) 1995		C5 (Catalytic Oxidizer)	S135
E357	Reactor #1 (R-1) 1995		C5 (Catalytic Oxidizer)	S135
E358	Reactor #2 (R-2) 1995		C5 (Catalytic Oxidizer)	S135
E359	Distillation Column (C-1) 1995		C5 (Catalytic Oxidizer)	S135
E360	Waste Heat Recovery Boiler (DS-1/SG-1)	NA (See Comment 3)	NA	S136

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E361	Dowtherm Storage Tank (DT-1) 1995	STAR 7.12 40 CFR 60 Subparts VV, III, & RRR 40 CFR 63 Subpart F, G, and H	NA	S136
E362	Methanol Vaporizer (HX-1) 1995	STAR 7.25 40 CFR 60 Subparts VV, III, & RRR 40 CFR 63 Subpart F, G, and H	C5 (Catalytic Oxidizer)	S135
E364	Urea Formaldehyde Concentrate (UFC) Storage Tank 70500 gal (V-52) 1996	STAR 5.15 7.12 40 CFR 60 Subpart Kb 40 CFR 60 Subparts VV, III, & RRR 40 CFR 63 Subpart F, G, and H	C5 (Catalytic Oxidizer)	S135
E365	Urea Formaldehyde Concentrate (UFC) Storage Tank 70500 gal (V-53) 1996		C5 (Catalytic Oxidizer)	S135
E366	Urea Formaldehyde Concentrate (UFC) Storage Tank 25000 gal (V-54) 1996		C5 (Catalytic Oxidizer)	S135
E367	Urea Water Storage Tank 40000 gal (V-56) 1996	STAR 7.22	NA	S137
E368	Urea Water Storage Tank 40000 gal (V-57) 1996	STAR 7.22	NA	S138

U7 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. For Storage Tank (E361, E366, E367, and E368) the owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessels, unless the storage tank is equipped with a permanent submerged fill pipe. (Regulation 7.12, section 3)

iii. For Storage Tanks (E354, E364, and E365) the owner or operator shall equip the storage vessel with a floating roof, a vapor recovery system, or the equivalent (Regulation 7.12, section 3.1) (See Comment 1)

iv. For the MO Catalytic Oxidizer (C5) the inlet temperature of the catalyst bed shall be maintained such that the daily average when used to control fumes in HCHO mode (at 98.7% VOC destruction) show compliance with the 230°C minimum inlet temperature limit and while in UFC mode (at 99% VOC destruction) show compliance with the 270.1°C minimum inlet temperature limit, both set by the most recent stack test dated April 2008. (Regulation 2.16, section 4.1.1)

b. **HAP**

i. See Plant-Wide Unit Specific Conditions.

ii. See Appendix A: HON MACT Requirements.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall not exceed the calendar year TAC limits listed in the following table for the listed Emission Points and Stack ID. (Regulation 5.21 Section 4.3) (See Comment 2)

Equipment ID	Stack ID	Equipment Name	TAC Pollutant	Limit (ton/year)
E355-E359, E362, and E364-E366	S135	Equipment Controlled by Catalytic Incinerator combined	Formaldehyde	1.3055
			Ammonia	24.0*

*De Minimis

S2. **Monitoring and Record Keeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. For Storage Tank (E354, E361, E364, E365, E366, E367, and E368), the owner or operator shall maintain a record of the material stored in the storage vessel and, if the contents of the storage vessel are changed, a record shall be made of the new contents, the new vapor pressure, and the date of the change.

iii. The owner or operator shall keep a record that shows if the storage vessel is equipped with a submerged fill pipe. Submerged fill pipe means any fill pipe the discharge of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean every fill pipe the discharge opening of which is entirely submerged when the liquid level is 2 times the fill pipe diameter above the bottom of the tank.

iv. For the Catalytic Thermal Oxidizer (C5), the owner or operator shall monitor and record the date, time and period of operation in hours of the mode of operation of the metal oxide plant as either the HCHO mode or UFC mode.

v. For the Catalytic Thermal Oxidizer (C5), the owner or operator shall continuously monitor and record the temperature of the gas stream immediately before the catalyst bed while any process gas stream is being vented to it. Continuous monitoring and recording of the combustion temperature is defined as a frequency of four points equally spaced for each hour as outlined in 40 CFR 63.2 General Provisions.

vi. When the Catalytic Thermal Oxidizer (C5) is operating and any process gas stream is being vented to it, the owner or operator shall maintain continuous inlet temperature records. The continuous data recorder shall record at least 95% of the temperature records. The owner or operator shall monthly calculate and record the percentage of time that temperature data was recorded for that month while any process gas was being vented to it or make a declaration that the catalytic oxidizer was not used during that month.

vii. For the Catalytic Thermal Oxidizer (C5), the owner or operator shall monthly conduct and record a visual inspection of the oxidizer system including the burner assembly and fuel supply lines for problems. If any problems are found the owner or operator shall initiate corrective action consistent with the manufacturer's recommendations.

viii. For the Catalytic Thermal Oxidizer (C5), the owner or operator shall annually, conduct and record an internal visual inspection of the catalyst bed to check for channeling, abrasion and settling. If problems are found, the owner or operator shall take initiate corrective actions consistent with the manufacturer's recommendations and conduct a catalyst activity check within 30 days of completing the corrective actions. The annual inspection shall be conducted each calendar year with a period of no less than three (3) months between inspections. If catalyst is replaced in accordance with the manufacturer's recommendations a new performance test (as described in Appendix B – Control Device Efficiencies and Determination Methods of this permit) may need to be conducted within six (6) months of the date of catalyst replacement per S2.a.xii.

ix. For the Catalytic Thermal Oxidizer (C5), the owner or operator shall monthly conduct and record an external visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If any problems are found the owner or operator shall initiate corrective action consistent with the manufacturer's recommendations and a new performance test may need to be conducted within six (6) months of the initial observation. If catalyst is replaced in accordance with the manufacturer's recommendations a new performance test (as described in Appendix B – Control Device Efficiencies and Determination Methods of this permit) may need to be conducted within six (6) months of the date of catalyst replacement per S2.a.xii.

x. For the Catalytic Thermal Oxidizer (C5), the owner or operator shall maintain records, monthly, of the results of all visual inspections. Records of the results shall include the date of the inspection, the name of the person conducting the inspection, whether or not problems including but not limited to structural damage, channeling, abrasion, or settling were observed, and what if any corrective action was performed. If the catalytic oxidizer is not operated during a given month, then no visual inspections need to be performed and a negative declaration shall be entered in the record.

xi. For the Catalytic Thermal Oxidizer (C5), the owner or operator shall annually conduct and record a sampling and analysis of the catalyst activity (i.e., conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures approved by the District on 06/17/2013. Sampling shall be conducted each calendar year at a period of no less than three (3) months apart. Results of the sampling and analysis shall be completed with sixty (60) days of the date the sample was taken. Records shall include the date the sample was taken, the name of the person taking the sample, the date analysis of the catalyst activity was completed, the results of the analysis including conversion efficiency, and what if any corrective action was performed. If

catalyst is replaced in accordance with the manufacturer's recommendations a new performance test (as described in Appendix B – Control Device Efficiencies and Determination Methods of this permit) may need to be conducted within six (6) months of the date of catalyst replacement per S2.a.xii.

xii. If the catalyst bed is replaced and is not of like or better kind and quality as the old catalyst, then a new performance test must be conducted within six (6) months of the catalyst change to determine destruction efficiency according to Appendix B – Control Device Efficiencies and Determination Methods of this permit. If the catalyst bed is replaced and the replacement catalyst is of like or better kind and quality as the old catalyst, then a new performance test to determine destruction efficiency is not required and the previously established operating limits shall continue to be used for the Catalytic Oxidizer (C5).

b. **HAP**

i. See Plant-Wide Unit Specific Conditions.

ii. See Appendix A: HON MACT Requirements.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall monthly calculate and record the year to date TAC emissions for each month in the reporting period to determine the status of compliance for the Emission Points and corresponding Stack ID listed in the table of S1.c.ii.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

The owner or operator shall include, at a minimum, Emission Unit and Emission Point identification with the following information in the semi-annual compliance monitoring reports required in the Plant-Wide Unit, unless otherwise noted. (See General Condition 14)

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. For the Storage Tanks the owner or operator shall clearly identify all deviations from permit requirements in the semi-annual reports. If no deviations occur in that reporting period then the owner or operator shall report a negative declaration.

iii. The owner or operator shall report the following information regarding the Catalytic Thermal Oxidizer (C5):

1) Identification of any failure to perform the required maintenance;

2) Identification of all periods where the inlet temperature deviated from the standards on a daily average;

3) The percentage of time that data was recorded for each month; and

4) Description of any corrective action taken for each exceedance.

b. **HAP**

i. See Plant-Wide Unit Specific Conditions.

ii. See Appendix A: HON MACT Requirements.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall report the following information regarding the emission limits listed in the table of S1.c.ii:

1) The year to date TAC emissions from each month in the reporting period from emission points listed to determine compliance with corresponding emission limits listed;

2) Identification of all periods of exceedance of the TAC emission limits; and

3) Description of any corrective action taken for each exceedance.

U7 Comments

1. Storage tank (E354) is equipped with a floating roof and storage tanks (E364, E365, and E366) are controlled by a Catalytic Oxidizer (C5), which the District considers to be equivalent.

2. TAC limits are based on EA Demonstration submitted by the company and received by the District on 2/14/2014. This unit has TAC emission standards since its EA Demonstration was based on controlled PTE. If the controlled PTE for the TAC is less than de minimis level, De Minimis is listed as the basis of the limit. If the controlled PTE for the TAC is greater than de minimis level, modeling results were used to calculate risk value to compare to the EA Goals. In this case, modeled emission rates are used as the basis of the limit.

3. Waste Heat Recovery Boilers (E5 and E360) do not combust any fuel, therefore are not defined as indirect heat exchangers.

4. For (E34 -E36), 40 CFR 63.110(b)(1) states that after the compliance dates [1997] specified in 63.100 of subpart F of this part, a Group 1 or Group 2 storage vessel that is also subject to the provisions of 40 CFR part 60, subpart Kb is required to comply only with the provisions of this subpart.

5. The Company has chosen to demonstrate compliance with the HON MACT requirements in lieu of the requirement of 40 CFR 60 Subpart VV, III, and RRR Per 63.110(d)(10) and 63.160(c)(1).

Emission Unit U8: Resin Production (PF-2)

Emission Unit Description: Manufacture of phenolic resin

U8 Applicable Regulations:

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1 through 3
7.25	Standard of Performance for New Sources Using Volatile Organic Materials	1 through 5

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	All
5.01	General Provisions	1 through 4
5.15	Chemical Accident Prevention Provisions	1
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

U8 Equipment:

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E369	Reactor Line G/H Weigh Tank 5300 gal (V-226G/H) 1996	STAR 5.15 7.25	PF-2 RTO (Recuperative Thermal Oxidizer)	PF-2 RTO
E370	Reactor Line G Reactor 16000 gal (R-201G) 1996		PF-2 RTO (Recuperative Thermal Oxidizer)	PF-2 RTO
E371	Reactor Line G Condenser (E-201G) 1996		PF-2 RTO (Recuperative Thermal Oxidizer)	PF-2 RTO
E372	Reactor Line G Surge Tank 13600 gal (V-205G) 1996		PF-2 RTO (Recuperative Thermal Oxidizer)	PF-2 RTO
E373	Reactor Line G Distillate Receiver tank 6900 gal (V-208G) 1996		PF-2 RTO (Recuperative Thermal Oxidizer) for Vacuum Distillates/ NA for Atmospheric Distillates	PF-2 RTO for Vacuum/ S-DR-V208G for Atmospheric
E375	Reactor Line H Reactor 16000 gal (R-201H) 1996	STAR 5.15 7.25	PF-2 RTO (Recuperative Thermal Oxidizer)	PF-2 RTO

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E376	Reactor Line H Condenser (E-201H) 1996		PF-2 RTO (Recuperative Thermal Oxidizer)	PF-2 RTO
E377	Reactor Line H Surge Tank 13600 gal (V-205H) 1996		PF-2 RTO (Recuperative Thermal Oxidizer)	PF-2 RTO
E503	G/H Surge Tank Knock Out Pot (V-899G/H) 1996	IA	PF-2 RTO (Recuperative Thermal Oxidizer)	PF-2 RTO
E378	Reactor Line H Distillate Receiver tank 6900 gal (V-208H) 1996	STAR 5.15 7.25	PF-2 RTO (Recuperative Thermal Oxidizer) for Vacuum Distillation/ NA for Atmospheric Distillation	PF-2 RTO for Vacuum/ S-DR-V208H for Atmospheric
E379	Shared Vacuum Compressor (K-202-10) 1996		PF-2 RTO (Recuperative Thermal Oxidizer)	PF-2 RTO
E380	H Vacuum Compressor (K-202-11) 1996		PF-2 RTO (Recuperative Thermal Oxidizer)	PF-2 RTO
E381	G Vacuum Compressor (K-202-9) 1996		PF-2 RTO (Recuperative Thermal Oxidizer)	PF-2 RTO
E382	Shared Vacuum Compressor Separator 33 gal (K-218-10) 1996		PF-2 RTO (Recuperative Thermal Oxidizer)	PF-2 RTO
E383	H Vacuum Compressor Separator 33 gal (K-218-11) 1996		PF-2 RTO (Recuperative Thermal Oxidizer)	PF-2 RTO
E384	G Vacuum Compressor Separator 33 gal (K-218-9) 1996		PF-2 RTO (Recuperative Thermal Oxidizer)	PF-2 RTO
E385	Seal Water Pot 500 gal (V-233G/H) 1996		NA	S143
E386	Weak Distillate Tank 10000 gal (V-108G/H) 1996	STAR 7.25	NA	S144
E387	Decanted Phenol 25000 gal (V-308G/H) 1996		NA	S145

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E388	Lime Slurry Weigh Tank 650 gal (V-228G/H) 1996	7.08	C9 (Fabric Filter)	S140
E389	Sulfamic Acid Weigh tank 575 gal (V-215G/H) 1996	STAR 7.25 7.08 7.08	C10 (Fabric Filter)	S141
E392	G Flaker Belt (M-401G) 1996		PF-2 RTO (Recuperative Thermal Oxidizer) and C11 (Fabric Filter)	PF-2 RTO and S142
E393	G Flake Hopper (V-403G) 1996		C11 (Fabric Filter)	S142
E394	G Flake Crusher (M-405G) 1996		C11 (Fabric Filter)	S142
E395	G Supersacker (V-402G) 1996		C11 (Fabric Filter)	S142
E504	G 50 lb. Bagger (M-407G) 1996	7.08 STAR 7.25 7.08 7.08	C11 (Fabric Filter)	S142
E396	H Flaker Belt (M-401H) 1996		PF-2 RTO (Recuperative Thermal Oxidizer) and C11 (Fabric Filter)	PF-2 RTO and S142
E397	H Flake Hopper (V-403H) 1996		C11 (Fabric Filter)	S142
E398	H Flake Crusher (M-405H) 1996	7.25	C11 (Fabric Filter)	S142
E399	H Supersacker (V-401H) 1996		C11 (Fabric Filter)	S142
E465	Steam Ejector #1 (VJ250 G/H – A) 2008		PF-2 RTO (Recuperative Thermal Oxidizer)	PF-2 RTO
E466	Steam Ejector #2 (VJ250 G/H – B) 2008		PF-2 RTO (Recuperative Thermal Oxidizer)	PF-2 RTO
E467	Steam Ejector Condenser (E251G/H) 2008		PF-2 RTO (Recuperative Thermal Oxidizer)	PF-2 RTO

U8 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

See Plant-Wide Unit Specific Conditions.

b. **HAP**

See Plant-Wide Unit Specific Conditions.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions

ii. The owner or operator shall not exceed the calendar year TAC limits listed in the following table for the listed Emission Points and Stack ID. (Regulation 5.21 Section 4.3) (See Comment 1)

Equipment ID	Stack ID	Equipment Name	TAC Pollutant	Limit (ton/year)
E369	PF-2 RTO	Reactor Line G: Weigh Tank	Formaldehyde	0.0185*
E370	PF-2 RTO	Reactor Line G: Reactor	Formaldehyde	0.126
			Phenol	48.0*
E372	PF-2 RTO	Reactor Line G: Surge Tank	Phenol	48.0*
E373	PF-2 RTO	Reactor Line G: Distillate Receiver Tank	Formaldehyde	0.0185*
E375	PF-2 RTO	Reactor Line H: Reactor	Formaldehyde	0.126
			Phenol	48.0*
E377	PF-2 RTO	Reactor Line H: Surge Tank	Phenol	48.0*
E378	PF-2 RTO	Reactor Line H: Distillate Receiver Tank	Formaldehyde	0.0185*

*De Minimis

iii. For the PF-2 RTO (Recuperative Thermal Oxidizer), the owner or operator shall operate the oxidizer with a minimum residence time of 0.50 seconds and a combustion temperature above the minimum temperature of 1350°F on a three hour average and assume a 99.31% destruction efficiency (based on Stack Test dated April 2010) until a more recent test is approved by the District at which time the destruction efficiency and operating conditions will be replaced by the documented test conditions and results. (Regulation 2.16, section 4.1.1)

iv. The PF-2RTO (Recuperative Thermal Oxidizer) shall have a minimum destruction efficiency of 99%. (District Permit 67-09-C)

d. **PM**

i. For Emission Point (E388), the owner or operator shall not cause to be discharged into the atmosphere PM emissions that exceed 7.27 lb/hr based on actual operating hours in a calendar day. (Regulation 7.08, section 3.1.2) (See Comment 2)

ii. For Emission Point (E389), the owner or operator shall not cause to be discharged into the atmosphere PM emissions that exceed 6.74 lb/hr based on actual operating hours in a calendar day. (Regulation 7.08, section 3.1.2) (See Comment 2)

iii. For Emission Points (E392-E399, and E504), the owner or operator shall not cause to be discharged into the atmosphere PM emissions that exceed 9.73 lb/hr each based on actual operating hours in a calendar day. (Regulation 7.08, section 3.1.2) (See Comment 2)

iv. The owner or operator shall utilize controls at all times the process equipment is in operation and shall, to the extent practicable, maintain and operate any affected facility including associated air

pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 2.16, section 4.1.1)

e. **Opacity**

The owner or operator shall not cause the emission into the open air of particulate matter from emission points (E388, E389, E392-E399, and E504) that equals or exceeds 20% opacity. (Regulation 7.08, section 3.1.1)

S2. **Monitoring and Record Keeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **VOC**

See Plant-Wide Unit Specific Conditions.

b. **HAP**

See Plant-Wide Unit Specific Conditions.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall monthly calculate and record the year to date TAC emissions for each month in the reporting period to determine the status of compliance for the Emission Points and corresponding Stack ID listed in the table of S1.c.ii.

iii. The owner or operator shall keep a monthly record of the hours the process operated and the hours where temperature data was recorded. The owner or operator shall monthly calculate the percentage of time that temperature data was recorded for that month.

iv. For the PF-2 RTO (Recuperative Thermal Oxidizer), the owner or operator shall continuously monitor the combustion temperature. The combustion temperature monitoring device shall be equipped with a continuous recorder. Continuously monitor and record the combustion temperature is defined as a frequency of four points equally spaced for each hour as outlined in 40 CFR 63.2 General Provisions.

v. All 3 hour periods of operation when the average combustion temperature is below the minimum temperature shall be considered to be uncontrolled with zero percent destruction efficiency. Multiple performance tests can be conducted with various average combustion temperatures and resulting efficiencies for each. Any destruction efficiency achieved shall only be used in emission calculations when the actual recorded three hour average temperature during process operations is greater than or equal to the average combustion temperature documented in a District approved stack test. The minimum temperature is considered to be the lowest temperature for which a District accepted stack test has been performed unless otherwise specified. Stack test results will not be considered applicable after a period of 10 years following the date of the performance test.

vi. When the PF-2 RTO (Recuperative Thermal Oxidizer) is operating and processing any process vent stream, the owner or operator shall maintain continuous combustion temperature records. The continuous data recorder shall record at least 95% of the temperature records.

vii. The owner or operator shall keep a monthly record of the hours the process operated and the hours where temperature data was recorded. The owner or operator shall monthly calculate the percentage of time that temperature data was recorded for that month.

d. **PM**

i. For Control Devices (C9, C10, and C11) (Fabric Filters), the owner or operator shall perform monthly visual inspections of the fabric filter to ensure mechanical integrity and proper operation,

including pulse air mechanism. Bags (filters) shall be replaced as needed. Verify that the fans associated with the equipment are operating.

ii. The owner or operator shall maintain daily records of any periods of time where the process was operating and the control device was not operating or a declaration at the end of each month that the control device operated at all times that day when the process was operating.

e. **Opacity**

i. For Emission Points (E388, E389, E392-E399, and E504), the owner or operator shall conduct a monthly one-minute visible emissions survey, during normal operation of the emission points. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

iii. The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

The owner or operator shall include, at a minimum, Emission Unit and Emission Point identification with the following information in the semi-annual compliance monitoring reports required in the Plant-Wide Unit, unless otherwise noted. (See General Condition 14)

a. **VOC**

See Plant-Wide Unit Specific Conditions.

b. **HAP**

See Plant-Wide Unit Specific Conditions.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall report the following information regarding the emission limits listed in the table of S1.c.ii:

1) The year to date TAC emissions from each month in the reporting period from emission points listed to determine compliance with corresponding emission limits listed;

2) Identification of all periods of exceedance of the TAC emission limits; and

3) Description of any corrective action taken for each exceedance.

iii. For the Regenerative Thermal Oxidizer (PF-2 RTO):

1) Identification of all periods where the temperature is below the requirement of S2.c.iv on a three hour average;

2) The percentage of time that data was recorded for each month; and

3) Description of any corrective action taken for each exceedance.

d. **PM**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring report for PM and clearly identify all deviations from permit requirements in the semi-annual reports. If no deviations occur in that reporting period then the owner or operator shall report a negative declaration:

i. Identification of all periods of exceedance of the PM emission limits;

ii. Identification of all missed visual inspections;

iii. Description of any corrective action taken for each excursion or exceedance;

iv. Calculations of the PM emission rate during the times that standards or limits were exceeded;

e. **Opacity**

The owner or operator shall clearly identify all deviations from permit requirements in the semi-annual reports. If no deviations occur in that reporting period then the owner or operator shall report a negative declaration.

i. The date, time and results of each Method 9 that exceeded the opacity standard

ii. The number of surveys where visible emissions were observed

iii. Description of any corrective action taken

U8 Comments

1. TAC limits are based on EA Demonstration submitted by the company and received by the District on 2/14/2014. This unit has TAC emission standards since its EA Demonstration was based on controlled PTE. If the controlled PTE for the TAC is less than de minimis level, De Minimis is listed as the basis of the limit. If the controlled PTE for the TAC is greater than de minimis level, modeling results were used to calculate risk value to compare to the EA Goals. In this case, modeled emission rates are used as the basis of the limit.
2. The Company conducted a PM demonstration submitted 7/25/14 and the hourly PM limits cannot be exceeded uncontrolled for equipment contained in this unit.

Emission Unit U9: Wastewater Treatment Plant

Emission Unit Description: Treatment of Waste Water

U9 Applicable Regulations:

Federally Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
7.25	Standard of Performance for New Sources Using Volatile Organic Materials	1 through 5

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	All
5.01	General Provisions	1 through 4
5.15	Chemical Accident Prevention Provisions	1
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

U9 Equipment:

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E422	Stream #2: Weir/Waterfall (sump 3) 1977	STAR 5.15 7.25	NA	FS024
E423	Waste #6: Storage Tank (sump 8A) 1977		NA	FS027
T-101A	West EQ Tank (96V-751) 2009		WWTP RTO (Recuperative Thermal Oxidizer)	WWTP RTO
T-101B	East EQ Tank (96V-750) 2009		WWTP RTO (Recuperative Thermal Oxidizer)	WWTP RTO
E426	N Aeration Basin 1977		NA	FS018
E427	S Aeration Basin 1977		NA	FS019
E428	West Clarifier (V-701A)		NA	FS016
E429	East Clarifier (V-701B)		NA	FS020
E434	Digester (V-717)		NA	FS015

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E434	100,000 gallon Digester (V-717) Not installed to date		WWTP RTO (Recuperative Thermal Oxidizer)	WWTP RTO
E436	East Spill Containment Tank (V-715B) 1982		NA	E Spill Tank
E441a	Open Trench (filter press)		NA	FS022
E441b	Stream #8: Open Trench (storm water)		NA	FS026
T-102A	Clarifier Primary North (V-770A) 2009		NA	PClar1
T-102B	Clarifier Primary South (V770B) 2009		NA	PClar2
E480	EQ Tank Sump (V-760)		NA	EQ Tank Sump
E487	Run Down Tank		NA	FS021
E488	Stream #1: Storage Tank (caustic wash)		NA	FS023
E489	Stream #3: Weir/Waterfall (sump 14)		NA	FS025
E490	Stream #4: Weir/Waterfall (sump 25)		NA	FS028

U9 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

See Plant-Wide Unit Specific Conditions.

b. **HAP**

i. See Plant-Wide Unit Specific Conditions.

ii. See Appendix A: HON MACT Requirements.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall not exceed the calendar year TAC limits listed in the following table for the listed Emission Points and Stack ID. (Regulation 5.21 Section 4.3) (See Comment 1)

Equipment ID	Stack ID	Equipment Name	TAC Pollutant	Limit (ton/year)
E434	WWTP RTO	100,000 gallon Digester	Formaldehyde	0.0185*
T-102A	PClar1	Clarifier Primary North	Formaldehyde	0.0185*
T-102B	PClar2	Clarifier Primary South	Formaldehyde	0.0185*
T-101A	WWTP RTO	West EQ Tank	Formaldehyde	0.0185*
T-101B	WWTP RTO	East EQ Tank	Formaldehyde	0.0185*

*De Minimis

iii. For the WWTP RTO (Recuperative Thermal Oxidizer), the owner or operator shall operate the oxidizer with a minimum residence time of 0.50 seconds and a combustion temperature above the minimum temperature of 1350°F on a three hour average and assume a 99% destruction efficiency for VOC (based on Certified Guarantee dated February 2013) until an initial performance test report has been approved by the District at which time the destruction efficiency and operating conditions will be replaced by the documented test conditions and results. (Regulation 2.16, section 4.1.1)

S2. **Monitoring and Record Keeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

See Plant-Wide Unit Specific Conditions.

b. **HAP**

i. See Plant-Wide Unit Specific Conditions.

ii. See Appendix A: HON MACT Requirements.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall monthly calculate and record the year to date TAC emissions for each month in the reporting period to determine the status of compliance for the Emission Points and corresponding Stack ID listed in the table of S1.c.ii.

iii. For the WWTP RTO (Recuperative Thermal Oxidizer), the owner or operator shall continuously monitor the combustion temperature. The combustion temperature monitoring device shall be equipped with a continuous recorder. Continuously monitor and record the combustion temperature is defined as a frequency of four points equally spaced for each hour as outlined in 40 CFR 63.2 General Provisions.

iv. All 3 hour periods of operation when the average combustion temperature is below the minimum temperature shall be considered to be uncontrolled with zero percent destruction efficiency. Multiple performance tests can be conducted with various average combustion temperatures and resulting efficiencies for each. Any destruction efficiency achieved shall only be used in emission calculations when the actual recorded three hour average temperature during process operations is greater than or equal to the average combustion temperature documented in a District approved stack test. The minimum temperature is considered to be the lowest temperature for which a District accepted stack test has been performed unless otherwise specified. Stack test results will not be considered applicable after a period of 10 years following the date of the performance test.

v. When the WWTP RTO (Recuperative Thermal Oxidizer) is operating and processing any process vent stream, the owner or operator shall maintain continuous combustion temperature records. The continuous data recorder shall record at least 95% of the temperature records.

vi. The owner or operator shall keep a monthly record of the hours the process operated and the hours where temperature data was recorded. The owner or operator shall monthly calculate the percentage of time that temperature data was recorded for that month.

S3. **Reporting (Regulation 4.1.9.3)**

The owner or operator shall include, at a minimum, Emission Unit and Emission Point identification with the following information in the semi-annual compliance monitoring reports required in the Plant-Wide Unit, unless otherwise noted. (See General Condition 14)

a. **VOC**

See Plant-Wide Unit Specific Conditions.

b. **HAP**

i. See Plant-Wide Unit Specific Conditions.

ii. See Appendix A: HON MACT Requirements.

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall report the following information regarding the emission limits listed in the table of S1.c.ii:

1) The year to date TAC emissions from each month in the reporting period from emission points listed to determine compliance with corresponding emission limits listed; (See Comment 3)

2) Identification of all periods of exceedance of the TAC emission limits; and

3) Description of any corrective action taken for each exceedance.

iii. For the Regenerative Thermal Oxidizer (WWTP RTO):

1) Identification of all periods where the temperature is below the requirement of S2.c.iv on a 3 hour average;

2) The percentage of time that data was recorded for each month; and

3) Description of any corrective action taken for each exceedance.

U9 Comments

1. TAC limits are based on EA Demonstration submitted by the company and received by the District on 2/14/2014. This unit has TAC emission standards since its EA Demonstration was based on controlled PTE. If the controlled

PTE for the TAC is less than de minimis level, De Minimis is listed as the basis of the limit. If the controlled PTE for the TAC is greater than de minimis level, modeling results were used to calculate risk value to compare to the EA Goals. In this case, modeled emission rates are used as the basis of the limit.

2. The provisions of 40 CFR 60 subpart VV, III, and RRR along with 40 CFR 63 subpart F, G, and H apply to each affected facility that is part of a process unit that produces one of the listed organic chemicals as a product, co-product, by-product, or intermediate, except as described. Unit 1 and Unit 7 are the only process units identified at this plant which produces the affected organic chemicals as described.

3. Company correspondence indicates that operations which cause emissions have ceased for the following equipment listed in the table and must submit a construction permit application in order to resume use of the equipment for the handling of VOC, HAP, TAC or any other materials which may contain criteria pollutants.

ID	Description
E435	West Spill Containment Tank 1982

Emission Unit U10: Utilities

Emission Unit Description: Utility boilers and miscellaneous other equipment

U10 Applicable Regulations:

Federally Enforceable Regulation		
Regulation	**Title**	**Applicable Sections**
6.40	Standards of Performance for Gasoline Transfer to Motor Vehicles (Stage II Vapor Recovery)	1.3
7.06	Standards of Performance for New Indirect Heat Exchangers	1, 2, 3, 4.1.4, 4.2, 5.1.1, and 8
7.08	Standards of Performance for New Process Operations	1 through 3
7.15	Standards of Performance for Gasoline Transfer to New Service Station Storage Tanks (Stage I Vapor Recovery)	1, 2, 3.1, 3.3, 3.4, 3.6, 3.7, 3.8 and 5
40 CFR 63 Subpart CCCCCC	National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities	40 CFR 63.11111, 40 CFR 63.11112, 40 CFR 63.11113, 40 CFR 63.11115, and 40 CFR 63.11116
40 CFR 63 Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	40 CFR 63.6585, 63.6590, 63.6603, 63.6605, 63.6612, 63.6625, 63.6640, 63.6650

District Only Enforceable Regulations		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	All
5.01	General Provisions	1 through 4
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

U10 Equipment:

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E401	H2SO4 Tank 5000 gal (V-712) 1997	STAR	NA	S154
E402	Diesel Fire Pump 240 hp 1994	40 CFR 63 Subpart ZZZZ	NA	S146
E403	Backup Diesel Generator #1 540 hp 1998	40 CFR 63 Subpart ZZZZ	NA	S147

ID	Description	Applicable Regulation(s)	Control Device	Stack ID
E404	Backup Diesel Generator #2 280 hp 1993	40 CFR 63 Subpart ZZZZ	NA	S148
E406	Fuel Oil Storage Tank 11000 gal (V-816) 1995 (Insignificant Activity)	7.12	NA	S155
E407	Gasoline Tank and Gasoline Refueling 500 gal 2000	STAR 6.40 7.15 40 CFR 63 Subpart CCCCCC	NA	S152
E408	Used Oil Tank 700 gal 1997 (Insignificant Activity)	7.12	NA	S153
E409	Utility Boiler 1, natural gas fired with fuel oil backup, make Johnston, model 609 31.5 MMBtu/hr 1977	7.06	NA	S150
E410	Utility Boiler 2, natural gas fired with fuel oil backup, make Johnston, model 609 31.5 MMBtu/hr 1977		NA	S151
E419	East Cooling Tower 1 1977	7.08	NA	NA
E420	East Cooling Tower 2 1996		NA	NA
E421	West Cooling Tower 1996		NA	NA

U10 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. For Emission Point (E407), (Regulation 7.15, section 3) (Regulation 6.40, section 1.3) (40 CFR Part 63 Subpart CCCCCC) (See Comment 5)

1) The owner or operator of an affected facility shall install, maintain, and operate the following devices on the storage tanks: (Regulation 7.15, section 3.1)

(a) Submerged fill pipe; (Regulation 7.15, section 3.1.1)

(b) If the gasoline storage tank is equipped with a separate gauge well, a gauge well drop tube shall be installed which extends to within six inches of the bottom of the tank; (Regulation 7.15, section 3.1.2)

(c) Vent line restrictions on the affected facility; and (Regulation 7.15, section 3.1.3)

(d) Vapor balance system and vapor tight connections on the liquid fill and vapor return hoses. The cross-sectional area of the vapor return hose and any other vapor return passages in the circuit connecting the vapor space in the service station tank to that of the truck tank must be at least 50% of the liquid fill hose cross-sectional area for each tank and free of flow restrictions to achieve acceptable recovery. The vapor balance equipment must be maintained according to the manufacturer's specifications. The type, size and design of the vapor balance system are subject to the approval of the District. (Regulation 7.15, section 3.1.4)

2) The owner or operator shall not allow delivery of fuel to the storage tanks until the vapor balance system is properly connected to the transport vehicle and the affected facility. (Regulation 7.15, section 3.3)

3) No person shall deliver gasoline to a service station as defined in Regulation 7.15 without connecting the vapor return hose between the tank of the delivery truck and the storage tank receiving the product. The vapor balance system must be operating in accordance with the manufacturer's specifications. (Regulation 7.15, section 3.4)

4) The owner or operator shall equip above ground tanks with dry breaks with any liquid spillage upon the line disconnect not exceeding 10 ml. (Regulation 7.15, section 3.7)

5) The owner or operator shall operate and maintain equipment with no defects and: (Regulation 7.15, section 3.8)

(a) All fill tubes shall be equipped with vapor-tight covers including gaskets, (Regulation 7.15, section 3.8.1)

(b) All dry breaks shall have vapor-tight seals and shall be equipped with vapor-tight covers or dust covers, (Regulation 7.15, section 3.8.2)

(c) All vapor return passages shall be operated so there can be no obstruction of vapor passage from the storage tank back to the delivery vehicle, (Regulation 7.15, section 3.8.3)

(d) All storage tank vapor return pipes and fill pipes without dry breaks shall be equipped with vapor-tight covers including gaskets, and (Regulation 7.15, section 3.8.4)

(e) All hoses, fittings, and couplings shall be in a vapor-tight condition. (Regulation 7.15, section 3.8.5)

6) The owner or operator shall not exceed 10,000 gallons of gasoline based upon calculating the average volume of gasoline dispensed per month over the consecutive 12 month period, in order to be exempted from Regulation 6.40, except for the recordkeeping and reporting requirements. (Regulation 6.40, section 1.1 and 1.3) (40 CFR 63.11111(b))

7) The owner or operator shall, at all times, operate and maintain associated control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing air emissions. (40 CFR 63.11115(a)) (See Comment 1)

8) The owner or operator must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following (40 CFR 63.11116):

(a) Minimize gasoline spills;

(b) Clean up spills as expeditiously as possible;

(c) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;

(d) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

iii. For Storage Tank (E406 and E408) the owner or operator shall not store VOC materials with an as stored vapor pressure of greater than or equal to 1.5 psia. (Regulation 7.12, section 3)

b. **HAP**

i. See Plant-Wide Unit Specific Conditions.

ii. See S1.a for 40 CFR 63 Subpart CCCCCC conditions.

iii. For (E402, E403, and E404) an existing stationary CI RICE located at an area source of HAP emissions, the owner or operator shall comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013. (40 CFR 63.6595(a)(1))

iv. Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in 40 CFR 63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted. (40 CFR 63.6604(b))

v. The owner or operator of an existing stationary RICE located at an area source of HAP emissions shall comply with the requirements Table 2(d) to this subpart: (40 CFR 63.6603(a))

1) The owner or operator shall change the oil and filter every 500 hours of operation or annually, whichever comes first. The owner or operator has the option to utilize an oil analysis program as described in 40 CFR 63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of this subpart. (40 CFR 63, Subpart ZZZZ, Table 2d.(4)(a))

2) The owner or operator shall inspect the air cleaners every 1,000 hours of operation or annually, whichever comes first, and replace as necessary. (40 CFR 63. Subpart ZZZZ, Table 2d.(4)(b))

3) The owner or operator shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. (40 CFR 63. Subpart ZZZZ, Table 2d.(4)(c))

vi. General requirements for complying with 40 CFR 63, Subpart ZZZZ:

1) The owner or operator shall be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to the RICE at all times. (40 CFR 63.6605(a))

2) At all times the owner or operator shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (40 CFR 63.6605(b))

vii. The owner or operator shall demonstrate continuous compliance with each emission limitation, operating limitation, and other applicable requirements in Tables 2c to this subpart. (40 CFR 63.6640(a))

viii. The owner or operator shall report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in § 63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE. (40 CFR 63.6640(b))

ix. The owner or operator shall operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of this section, is prohibited. If the owner or operator does not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. (40 CFR 63.6640(f))

1) There is no time limit on the use of the emergency stationary RICE in emergency situations. (40 CFR 63.6640(f)(1))

2) The owner or operator may operate the emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2). (40 CFR 63.6640(f)(2))

(a) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the

owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. (40 CFR 63.6640(f)(2)(i))

(b) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies, or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. (40 CFR 63.6640(f)(2)(ii))

(c) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. (40 CFR 63.6640(f)(2)(iii))

3) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (40 CFR 63.6640(f)(4))

(a) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system. (40 CFR 63.6640(f)(4)(i))

(b) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: (40 CFR 63.6640(f)(4)(ii))

i) The engine is dispatched by the local balancing authority or local transmission and distribution system operator. (40 CFR 63.6640(f)(4)(ii)(A))

ii) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. (40 CFR 63.6640(f)(4)(ii)(B))

iii) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. (40 CFR 63.6640(f)(4)(ii)(C))

iv) The power is provided only to the facility itself or to support the local transmission and distribution system. (40 CFR 63.6640(f)(4)(ii)(D))

v) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local

transmission and distribution system operator may keep these records on behalf of the engine owner or operator. (40 CFR 63.6640(f)(4)(ii)(E))

x. For the boilers (E409 and E410), to be considered a gas-fired boiler and remain not subject to 40 CFR 63 Subpart JJJJJJ the owner or operator shall not burn liquid fuel except during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year. (40 CFR 63.11237)

xi. For affected boilers that switch fuels or make a physical change to the boiler that results in the applicability of a different subcategory within subpart JJJJJJ or the boiler becoming subject to subpart JJJJJJ, you must demonstrate compliance within 180 days of the effective date of the fuel switch or the physical change. Notification of such changes must be submitted according to 40 CFR 63.11225(g). (40 CFR 63.11210(h))

xii. If you have switched fuels or made a physical change to the boiler and the fuel switch or change resulted in the applicability of a different subcategory within subpart JJJJJJ, in the boiler becoming subject to subpart JJJJJJ, or in the boiler switching out of subpart JJJJJJ due to a change to 100 percent natural gas, or you have taken a permit limit that resulted in you being subject to subpart JJJJJJ, you must provide notice of the date upon which you switched fuels, made the physical change, or took a permit limit within 30 days of the change. The notification must identify: (40 CFR 63.11225(g))

1) The name of the owner or operator of the affected source, the location of the source, the boiler(s) that have switched fuels, were physically changed, or took a permit limit, and the date of the notice. (40 CFR 63.11225(g)(1))

2) The date upon which the fuel switch, physical change, or permit limit occurred. (40 CFR 63.11225(g)(2))

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall not exceed the calendar year TAC limits listed in the following table for the listed Emission Points and Stack ID. (Regulation 5.21 Section 4.3) (See Comment 6)

Equipment ID	Stack ID	Equipment Name	TAC Pollutant	Limit (ton/year)
E409	S150	Utility Boiler 1 While burning fuel oil	Arsenic	0.0006
			Beryllium	0.0004
			Formaldehyde	0.0324
E410	S151	Utility Boiler 2 While burning fuel oil	Arsenic	0.0006
			Beryllium	0.0004
			Formaldeyde	0.0324

d. **PM**

i. For Emission Points (E409 and E410), the owner or operator shall not cause to be discharged into the atmosphere from that affected facility particulate matter in excess of 0.209 pounds per million BTU actual total heat input based on a three hour average. (Regulation 7.06, section 4.1.4) (See Comment 1)

ii. For Emission Point (E419), the owner or operator shall not allow PM emissions to exceed 65.26 lb/hr from this emission unit based on actual operating hours in a calendar day. (Regulation 7.08, section 3.1.2) (See Comment 3)

iii. For Emission Point (E420), the owner or operator shall not allow PM emissions to exceed 57.81 lb/hr from this emission unit based on actual operating hours in a calendar day. (Regulation 7.08, section 3.1.2) (See Comment 3)

iv. For Emission Point (E421), the owner or operator shall not allow PM emissions to exceed 67.63 lb/hr from this emission unit based on actual operating hours in a calendar day. (Regulation 7.08, section 3.1.2) (See Comment 3)

e. **Opacity**

For Emission Points (E409 and E410), the owner or operator shall not cause to be discharged into the atmosphere from any affected facility particulate matter emissions which exhibit greater than 20% opacity except: (See Comment 2)

1) For indirect heat exchangers with a heat input capacity of less than 250 million BTU/hr, a maximum of 40% opacity shall be permissible for not more than two consecutive minutes in any 60 consecutive minutes;

2) For indirect heat exchangers with heat input capacity of less than 250 million BTU/hr, a maximum of 40% opacity shall be permissible for not more than six consecutive minutes in any 60 consecutive minutes during cleaning the fire box or blowing soot; or

3) For emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.

(Regulation 7.06, section 4.2)

ii. For Emission Points (E419, E420, and E421), the owner or operator shall not allow visible emissions to equal or exceed 20% opacity. (Regulation 7.08, section 3.1.1) (See Comment 8)

f. **SO_2**

For Emission Points (E409 and E410), the owner or operator shall not cause to be discharged into the atmosphere from that affected facility any gases which contain sulfur dioxide in excess of 1.0 pounds per million BTU actual total heat input based on a three hour average for combustion of liquid and gaseous fuels. (Regulation 7.06, section 5.1.1) (See Comment 1)

S2. **Monitoring and Record Keeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

i. See Plant-Wide Unit Specific Conditions.

ii. For Emission Point (E407), the owner or operator shall keep a record of the amount of throughput of gasoline per month to determine compliance with Specific Condition S1.a.ii.6. (Regulation 6.40, section 3.1.1) (40 CFR 63.11116(b))

b. **HAP**

i. See Plant-Wide Unit Specific Conditions.

ii. See S2.a for 40 CFR 63 Subpart CCCCCC conditions.

iii. For (E402, E403, and E404) monitoring, installation, collection, operation, and maintenance requirements: (40 CFR 63.6625)

1) The owner or operator shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR 63.6625(e))

2) The owner or operator shall install a non-resettable hour meter if one is not already installed. (40 CFR 63.6625(f))

3) The owner or operator shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup. (40 CFR 63.6625(h))

4) The owner or operator has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. (40 CFR 63.6625(i))

iv. Recordkeeping requirements: (40 CFR 63.6655)

1) The owner or operator shall keep the following records that apply to your RICE: (40 CFR 63.6655(a))

(a) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv). (40 CFR 63.6655(a)(1))

(b) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. (40 CFR 63.6655(a)(2))

(c) Records of all required maintenance performed on the air pollution control and monitoring equipment. (40 CFR 63.6655(a)(4))

(d) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. (40 CFR 63.6655(a)(5)

(e) The owner or operator shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in 40 CFR 63.6640(f)(2)(ii) or (iii) or 40 CFR 63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. (40 CFR 63.6655(f))

2) The owner or operator shall keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to the RICE. (40 CFR 63.6655(d))

3) The owner or operator shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan. (40 CFR 63.6655(e))

4) The owner or operator shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in 40 CFR 63.6640(f)(2)(ii) or (iii) or 40 CFR 63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. (40 CFR 63.6655(f))

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall monthly calculate and record the year to date TAC emissions for each month in the reporting period to determine the status of compliance for the Emission Points and corresponding Stack ID listed in the table of S1.c.ii.

d. **PM**

There are no monitoring recordkeeping requirements for PM compliance. (See Comments 1 and 3)

e. **Opacity**

There are no monitoring and recordkeeping requirements for Opacity compliance. (See Comments 2 and 8)

f. **SO_2**

There are no monitoring and recordkeeping requirements for SO_2 compliance. (See Comment 1)

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

The owner or operator shall include, at a minimum, Emission Unit and Emission Point identification with the following information in the semi-annual compliance monitoring reports required in the Plant-Wide Unit, unless otherwise noted. (See General Condition 14)

a. **VOC**

For Emission Point (E407), the owner or operator shall submit a report by April 15 every year showing the monthly gasoline throughput for each month in the preceding calendar year. (Regulation 6.40, section 2.2.1) (See Comment 4)

b. **HAP**

i. See Plant-Wide Unit Specific Conditions.

ii. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable. (40 CFR 63, Subpart ZZZZ, Footnote 2 of Table 2d)

c. **TAC**

i. See Plant-Wide Unit Specific Conditions.

ii. The owner or operator shall report the following information regarding the emission limits listed in the table of S1.c.ii;

1) The year to date TAC emissions from each month in the reporting period from emission points listed to determine compliance with corresponding emission limits listed,

2) Identification of all periods of exceedance of the TAC emission limits, and

3) Description of any corrective action taken for each exceedance.

b. **PM**

There are no reporting requirements for PM compliance. (See Comments 1 and 4)

d. **Opacity**

There are no reporting requirements for Opacity compliance. (See Comments 2 and 8)

e. **SO_2**

There are no reporting requirements for SO_2 compliance. (See Comment 1)

U10 Comments

1. A one-time PM and SO2 compliance demonstration has been performed for the boilers, using AP-42 emission factors and combusting natural gas, and the emission standards cannot be exceeded. Therefore, there are no monitoring, record keeping, and reporting requirements for these boilers with respect to PM and SO_2 emission limits.
2. The District has determined that using a natural gas fired boiler will inherently meet the 20% opacity standard. Therefore, the company is not required to perform periodic monitoring to demonstrate compliance with the opacity standard.
3. The Company has performed a one-time PM compliance demonstration dated 2/14/14 for the cooling towers, using AP-42 emission factors and the emission standards cannot be exceeded. Therefore, there are no monitoring, record keeping, and reporting requirements with respect to the PM emission limit.
4. The storage tank under this unit meets the definition of insignificant activities per Regulation 2.16, section 1.23. However, Regulation 6.40 or 7.15 applies to gasoline storage vessels. These tanks shall meet the requirements under Regulation 6.40 or 7.15.
5. TAC limits are based on EA Demonstration submitted by the company and received by the District on 2/14/2014. This unit has TAC emission standards since its EA Demonstration was based on controlled PTE. If the controlled PTE for the TAC is less than de minimis level, De Minimis is listed as the basis of the limit. If the controlled PTE for the TAC is greater than de minimis level, modeling results were used to calculate risk value to compare to the EA Goals. In this case, modeled emission rates are used as the basis of the limit.
6. The boilers commenced construction prior to June 9, 1989 and therefore are not subject to 40 CFR part 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.
7. Per 40 CFR 63.11195(e), a gas-fired boiler is not subject to the subpart JJJJJJ.
8. The District has determined that visible emission surveys are not required for cooling towers since the emissions are coated in water and should not have opacity issues.

Permit Shield

The owner or operator is hereby granted a permit shield that shall apply as long as the owner or operator demonstrates ongoing compliance with all the conditions of this permit. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements of the regulations cited in this permit as of the date of issuance, pursuant to Regulation 2.16, section 4.6.1.

Off-permit Documents

Document	Date
Rule Effectiveness Plan	March 31, 1995
Risk Management Plan	June 18, 1999

Alternative Operating Scenarios

There are no alternative operating scenarios.

Insignificant Activities

Source	No.	Description	PTE	Regulatory Citation
Internal Combustion (IC) Engines	8	Diesel fire pump and 2 generators in PTE (E 402, E403, and E404) listed as backup generators but PTE is calculated with 500 hours max use. Included in Emission Unit 10 1 Portable Air Compressors - 5 hp 2 Generators/Welders - 1 16-HP; 1 20-HP 1 Pressure Washer (WWTP) - 15 HP 1 Trash Pump (WWTP) - 15 HP Note: There is no natural gas generator on-site.	4.19 tpy NOx largest pollutant PTE	Regulation 1.02 Appendix A
R&D Boiler (<10MMBTU)	1	Natural Gas R&D Boiler 0.875 MMBTU	0.376 tpy NOx largest pollutant PTE	Regulation 1.02 Appendix A
E503 Knockout Pot	1	Knock-out pot (V-899G/H) was installed as part of the project in permit 497-96. The Knock-out pot does not vent to the atmosphere.	1.05 tpy VOC	Regulation 1.02

Activities without Appreciable Emissions

Source	No.	Description	Regulatory Citation
Fuel or oil storage tank with VP<10mmHg	1	Fuel Oil Storage Tank (E406)	Regulation 1.02 Appendix A
Portable diesel or gasoline storage tanks	1	Gasoline Tank(E407)	Regulation 1.02
Diesel or FO storage tank with TO<2X/year	1	Used oil tank is in the PTE (E408)	Regulation 1.02 Appendix A
E5 Waste Heat Recovery Boiler 1970	1	Heat Exchanger	Regulation 1.02
E136 Lime Slurry Tank	1	200 gal installed 1991	Regulation 1.02
E155 Lime Slurry Tank	1	400 gal installed 1995	Regulation 1.02
E259 - 25% Zinc Acetate Solution Storage Tank	1	12000 gal installed 1996	Regulation 1.02
E460 Phosphorus Oxychloride Storage Tank	1	200 gal installed 2002	Regulation 1.02
E461 Orthophthaloyl Chloride Storage Tank	1	250 gal installed 2002	Regulation 1.02

E469 Supersack Conditioner	1	No Known Regulated Emissions	Regulation 1.02
E472 KOH Storage Tank	1	No Known Regulated Emissions	Regulation 1.02
E360 Waste Heat Recovery Boiler	1	Heat Exchanger	Regulation 1.02
Unit 6 E501 and E502 Heat Recovery Exchangers	2	Heat Exchangers	Regulation 1.02
Facilities using peanut etc. oils	1	LRU (Castor Oil, Cashew Nut Shell Liquid Distillate, Linseed Oil).	Regulation 1.02 Appendix A
Cold Solvent Parts Cleaner - Secondary Reservoir	1	Safety Kleen Parts Washer - Maintenance 44" x 24" x 8" Freeboard (reservoir underneath, no free liquid in upper unit); spray nozzle & spray brush.	Regulation 1.02 Appendix A
Emergency vents or systems	6	The emissions from these vents are included in piping fugitives. These emissions were included in the PTE with the emissions from the processing equipment. PF-1: 2 LRU: 1 PF-2: 1 SP: 2	Regulation 1.02 Appendix A
VOC storage tanks <250 gal	4	Benzene Phosphorus Oxychloride Storage Tank, Small Utility Tank, and two Oxalic Acid Tanks	Regulation 1.02 Appendix A
Lab vents/exhausts	5	The activities in the hoods are R&D or product testing related. These are intermittent activities. No bulk chemical storage occurs in these hoods.	Regulation 1.02 Appendix A
Residential domestic equipment	5	Vacuum cleaners.	Regulation 1.02 Appendix A

IA Comments

1. Insignificant Activities identified in District Regulation 1.02 Appendix A may be subject to size or production rate disclosure requirements.
2. Insignificant Activities identified in District Regulation 1.02 Appendix A shall comply with generally applicable requirements.
3. Activities identified in Regulation 1.02, Appendix A, may not require a permit and may be insignificant with regard to application disclosure requirements but may still have generally applicable requirements that continue to apply to the source and must be included in the permit.
4. Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
5. In lieu of recording annual throughputs and calculating actual annual emissions, the owner or operator may elect to report the pollutant Potential To Emit (PTE) quantity listed in the Insignificant Activities table, as the annual emission for each piece of equipment.
6. The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.
7. The owner or operator shall submit an updated list of Insignificant Activities whenever changes in equipment located at the facility occur that cause changes to the plant wide emissions.

Emission Unit IA1: Parts Washer

Emission Unit Description: Cold Solvent Parts Washer

IA1 Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
6.18	Standards of Performance for Solvent Metal Cleaning Equipment	1, 2, 3, 4

IA1 Equipment:

Emission Point	Description	Applicable Regulation	Control ID
PW	One (1) cold solvent metal parts washer with a secondary reservoir	6.18	N/A

IA1 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. The owner or operator shall install, maintain, and operate the control equipment as follows: (Regulation 6.18, section 4)

1) The cold cleaner shall be equipped with a tightly fitting cover that is free of cracks, holes, or other defects. If the solvent is agitated or heated, then the cover shall be designed so that it can be easily operated with one hand. (Regulation 6.18, section 4.1.1)

2) The cold cleaner shall be equipped with a drainage facility that is designed so that the solvent that drains off parts removed from the cleaner will return to the cold cleaner. The drainage facility may be external if the District determines that an internal type cannot fit into the cleaning system. (Regulation 6.18, section 4.1.2)

3) A permanent, conspicuous label summarizing the operating requirements specified in Specific Condition S1.a.ii. shall be installed on or near the cold cleaner. (Regulation 6.18, section 4.1.3)

4) If used, the solvent spray shall be a fluid stream, not a fine, atomized, or shower type spray, at a pressure that does not cause excessive splashing. Flushing of parts using a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaner. Solvent flow shall be directed downward to avoid turbulence at the air-solvent interface and to prevent solvent from splashing outside of the cold cleaner. (Regulation 6.18, section 4.1.4)

5) Work area fans shall be located and positioned so that they do not blow across the opening of the cold cleaner. (Regulation 6.18, section 4.1.6)

6) The solvent-containing portion of the cold cleaner shall be free of all liquid leaks. Auxiliary cold cleaner equipment such as pumps, water separators, steam traps, or distillation units shall not have any visible liquid leaks, visible tears, or cracks. (Regulation 6.18, section 4.1.8)

ii. The owner or operator shall observe at all times the following operating requirements: (Regulation 6.18, section 4.2)

1) Waste solvent shall neither be disposed of nor transferred to another party in a manner such that more than 20% by weight of the waste solvent can evaporate. Waste solvent shall be stored only in a covered container. A covered container may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container. (Regulation 6.18, section 4.2.1)

2) The solvent level in the cold cleaner shall not exceed the fill line. (Regulation 6.18, section 4.2.2)

3) The cold cleaner cover shall be closed whenever a part is not being handled in the cold cleaner. (Regulation 6.18, section 4.2.3)

4) Parts to be cleaned shall be racked or placed into the cold cleaner in a manner that will minimize drag-out losses. (Regulation 6.18, section 4.2.4)

5) Cleaned parts shall be drained for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping, or rotating, the parts shall be positioned so that the solvent drains directly back to the cold cleaner. (Regulation 6.18, section 4.2.5)

6) A spill during solvent transfer shall be cleaned immediately, and the wipe rags or other sorbent material shall be immediately stored in a covered container for disposal or

recycling, unless enclosed storage of these items is not allowed by fire protection authorities. (Regulation 6.18, section 4.2.6)

7) Sponges, fabric, wood, leather, paper products, and other absorbent material shall not be cleaned in a cold cleaner. (Regulation 6.18, section 4.2.7)

iii. The owner or operator shall not operate a cold cleaner using a solvent with a vapor pressure that exceeds 1.0 mm Hg (0.019 psi) measured at 20 °C (68 °F). (Regulation 6.18, section 4.3.2)

S2. **Monitoring and Record Keeping (Regulation 2.16, section 4.1.9.1 and 4.1.9.2)**

a. **VOC**

i. The owner or operator shall conduct monthly inspections to verify compliance with the control and operational requirements specified in Specific Condition S1.

ii. The owner or operator shall maintain records of the results of the inspections specified in Specific Condition S2.a.i.

iii. The owner or operator shall maintain records that include the following for each purchase: (Regulation 6.18, section 4.4.2)

1) The name and address of the solvent supplier,

2) The date of the purchase,

3) The type of the solvent, and

4) The vapor pressure of the solvent measured in mm Hg at 20 °C (68 °F).

iv. All records shall be retained for 5 years and made available to the District upon request. (Regulation 6.18, section 4.4.3)

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports required in the Plant-Wide Unit, unless otherwise noted. (See General Condition 14)

a. **VOC**

i. Emission Unit ID number and emission point ID number;

ii. The beginning and ending date of the reporting period;

iii. Any deviation from the control and operational requirements specified in Specific Condition S1.

iv. If no deviations occur during a semi-annual reporting period, the report shall contain a negative declaration.

IA1 Comments

1. The parts washers under this unit meet the definition of insignificant activities per Regulation 2.16, section 1.23, therefore are de minimis for STAR. However, Regulation 6.18 applies to each cold cleaner that use VOC to remove soluble impurities from metal surfaces. These parts washers shall meet the requirements under Regulation 6.18.

Emission Unit IA2: New Emergency Generator(s)

Emission Unit Description: Generators used for emergency only

IA2 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	40 CFR 63.6603, 6604, 6605, 6625, 6640, 6645, 6655
40 CFR 60, Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	60.4200 - 4219
40 CFR 80, Subpart I	Motor Vehicle Diesel Fuel; Nonroad, Locomotive, and Marine Diesel Fuel; and ECA Marine Fuel	80.510
40 CFR 89, Subpart B	Emission Standards and Certification Provisions	89.112, 89.113
40 CFR 1039, Subpart B	Emission Standards and Related Requirements	1039.101, 1039.102, 1039.104, 1039.105

IA2 Equipment:

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
NEG	Emergency diesel generators are manufactured after April 1, 2006, with a maximum engine power less than or equal to 500 HP and located at an area source of HAP.	40 CFR 63, Subpart ZZZZ, 40 CFR 60, Subpart IIII	N/A	N/A

IA2 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **Unit Operation**

i. The owner or operator of a pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines shall comply with the emission standards in Table 1 to this subpart. (40 CFR 60.4205(a)) (See Table 1)

Table 1 Emission standards for Pre-2007 model (40 CFR 60, Subpart IIII)

Maximum Engine Power	Emission Standards in g/KW-hr (g/HP-hr)				
	NMHC + NO_X	HC	NO_X	CO	PM
kW < 8 (hp < 11)	10.5 (7.8)			8.0 (6.0)	1.0 (0.75)
8 ≤ kW < 19 (11 ≤ hp < 25)	9.5 (7.1)			6.6 (4.9)	0.80 (0.60)
19 ≤ kW < 37 (25 ≤ hp < 50)	9.5 (7.1)			5.5 (4.1)	0.80 (0.60)
37 ≤ kW < 56 (50 ≤ hp < 75)			9.2 (6.9)		
56 ≤ kW < 75 (75 ≤ hp < 100)			9.2 (6.9)		
75 ≤ kW < 130 (100 ≤ hp < 175)			9.2 (6.9)		
130 ≤ kW < 225 (175 ≤ hp < 300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225 ≤ kW < 375 (300 ≤ hp < 500)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

ii. The owner or operator of a 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that is not a fire pump engine shall comply with the emission standards (Table 2) obtained from 40 CFR 89.112, Table 1 for Tier 1 – 3 engines and 40 CFR 1039.101, Table 1 for Tier 4 engines, or the family emission limits (Table 3) obtained from 40 CFR 89.112, Table 2 for Tier 1 – 3 engines and 40 CFR 1039.101, Table 2 for Tier 4 engines, and smoke emission standards (Table 4) obtained from 40 CFR 89.113(a) for Tier 1-3 engines and 40 CFR 1039.105(b) for Tier 4 engines, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. (40 CFR 60.4205(b)) (40 CFR 60.4202)

Table 2 EPA Tier 1-4 Nonroad Diesel Engine Emission Standards[a], g/kW-hr (g/bhp-hr)

Maximum Engine Power	Tier	Model Year[b]	NO_x	HC	NMHC +NO_x	CO	PM
kW < 8 (hp < 11)	Tier 2/Tier 3	2005	-	-	7.5 (5.6)	8.0 (6.0)	0.8 (0.6)
	Tier 4	2008	-	-	7.5 (5.6)	8.0 (6.0)	0.4[c] (0.3)
8 ≤ kW < 19 (11 ≤ hp < 25)	Tier 2/Tier 3	2005	-	-	7.5 (5.6)	6.6 (4.9)	0.8 (0.6)
	Tier 4	2008	-	-	7.5 (5.6)	6.6 (4.9)	0.4 (0.3)
19 ≤ kW < 37	Tier	2004	-	-	7.5 (5.6)	5.5 (4.1)	0.6 (0.45)

Maximum Engine Power	Tier	Model Year[b]	NO_x	HC	NMHC +NO_x	CO	PM
(25 ≤ hp < 50)	2/Tier 3						
	Tier 4	2008	-	-	7.5 (5.6)	5.5 (4.1)	0.3 (0.22)
		2013	-	-	4.7 (3.5)	5.5 (4.1)	0.03 (0.022)
37 ≤ kW < 56 (50 ≤ hp < 75)	Tier 2	2004	-	-	7.5 (5.6)	5.0 (3.7)	0.4 (0.3)
	Tier 3	2008	-	-	4.7 (3.5)	5.0 (3.7)	0.3[d] (0.22)
	Tier 4	2013	-	-	4.7 (3.5)	5.0 (3.7)	0.03 (0.022)
56 ≤ kW < 75 (75 ≤ hp < 100)	Tier 2	2004	-	-	7.5 (5.6)	5.0 (3.7)	0.4 (0.3)
	Tier 3	2008	-	-	4.7 (3.5)	5.0 (3.7)	0.4 (0.3)
	Tier 4	2012-2014[e]	0.4 (0.3)	0.19 (0.14)	-	5.0 (3.7)	0.02 (0.015)
75 ≤ kW < 130 (100 ≤ hp < 175)	Tier 2	2003	-	-	6.6 (4.9)	5.0 (3.7)	0.3 (0.2)
	Tier 3	2007	-	-	4.0 (3.0)	5.0 (3.7)	0.3 (0.2)
	Tier 4	2012-2014[e]	0.4 (0.3)	0.19 (0.14)	-	5.0 (3.7)	0.02 (0.015)
130 ≤ kW < 225 (175 ≤ hp < 300)	Tier 2	2003	-	-	6.6 (4.9)	3.5 (2.6)	0.2 (0.15)
	Tier 3	2006	-	-	4.0 (3.0)	3.5 (2.6)	0.2 (0.15)
	Tier 4	2011-2014[f]	0.4 (0.3)	0.19 (0.14)	-	3.5 (2.6)	0.02 (0.015)
225 ≤ kW ≤ 375 (300 ≤ hp ≤ 500)	Tier 3	2006	-	-	4.0 (3.0)	3.5 (2.6)	0.2 (0.15)
	Tier 4	2011-2014[f]	0.4 (0.3)	0.19 (0.14)	-	3.5 (2.6)	0.02 (0.015)

[a] Emission standards from 40 CFR 89.112 Table 1 for Tier 1-3 engines and 40 CFR 1039.101 Table 1 for Tier 4 engines.

[b] The model years listed indicate the model years for which the specified tier of limits take effect.

[c] Hand-startable, air-cooled, DI engines may be certified to Tier 2 standards through 2009 and to an optional PM standard of 0.6 g/kW-hr starting in 2010

[d] 0.4 g/kWh (Tier 2) if manufacturer complies with the 0.03 g/kW-hr standard from 2012

[e] PM/CO: full compliance from 2012; NO_x/HC: Option 1 (if banked Tier 2 credits used) – 50% engines shall comply in 2012-2013; Option 2 (if no Tier 2 credits claimed) – 25% engines shall comply in 2012-2014, with full compliance from 2014.12.31

[f] PM/CO: full compliance from 2011; NO_x/HC: 50% engines shall comply in 2011-2013

Table 3 EPA Tier 1-4 Nonroad Diesel Engine Family Emission Limits, g/kW-hr (g/bhp-hr)

Maximum Engine Power	Tier	Model Year[a]	NO_x	NMHC +NO_x	PM
kW < 8 (hp < 11)	Tier 2/Tier 3	2005	-	10.5 (7.8)	1.0 (0.7)
	Tier 4	-	-	10.5 (7.8)	0.8 (0.6)
8 ≤ kW < 19 (11 ≤ hp < 25)	Tier 2/Tier 3	2005	-	9.8 (7.3)	0.8 (0.6)
	Tier 4	-	-	9.5 (7.1)	0.8 (0.6)
19 ≤ kW < 37	Tier 2/Tier 3	2004	-	9.5 (7.1)	0.8 (0.6)

Maximum Engine Power	Tier	Model Year[a]	NO_x	NMHC +NO_x	PM
(25 ≤ hp < 50)	Tier 4	-	-	7.5 (5.6)	0.05 (0.037)
37 ≤ kW < 56 (50 ≤ hp < 75)	Tier 2	2004	-	11.5 (8.6)	1.2 (0.9)
	Tier 3	2008	-	7.5 (5.6)	1.2 (0.9)
	Tier 4	-	-	7.5 (5.6)	0.05 (0.037)
56 ≤ kW < 75 (75 ≤ hp < 100)	Tier 2	2004	-	11.5 (8.6)	1.2 (0.9)
	Tier 3	2008	-	7.5 (5.6)	1.2 (0.9)
	Tier 4	-	0.8 (0.6)	-	0.04 (0.03)
75 ≤ kW < 130 (100 ≤ hp < 175)	Tier 2	2003	-	11.5 (8.6)	1.2 (0.9)
	Tier 3	2007	-	6.6 (4.9)	1.2 (0.9)
	Tier 4	-	0.8 (0.6)	-	0.04 (0.03)
130 ≤ kW < 225 (175 ≤ hp < 300)	Tier 2	2003	-	10.5 (7.8)	0.54 (0.04)
	Tier 3	2006	-	6.6 (4.9)	0.54 (0.4)
	Tier 4	-	0.8 (0.6)	-	0.04 (0.03)
225 ≤ kW ≤ 375 (300 ≤ hp ≤ 500)	Tier 3	2006	-	6.4 (4.8)	0.54 (0.4)
	Tier 4	-	0.8 (0.6)	-	0.04 (0.03)

Table 4 EPA Tier 1-4 Smoke Emission Standards

Maximum Engine Power	Tier	Smoke Emission Standards
0 < kW ≤ 375 (0 < hp ≤ 500)	Tier 1	(1) 20% during the acceleration mode (2) 15% during the lugging mode; or (3) 50% during the peaks in either the acceleration or lugging modes.
	Tier 2	
	Tier 3	
	Tier 4	

iii. The owner or operator of an emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conducts performance tests in-use shall meet the NTE standards as indicated in the Testing section of this permit. (40 CFR 60.4205(e))

iv. The owner or operator of any modified or reconstructed emergency stationary CI ICE subject to this subpart shall meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed CI ICE that are specified in Table 2, Table 3, or the Testing section of this permit. (40 CFR 60.4205(f))

v. The owner or operator that is required comply with the emission standards specified in 40 CFR 60, Subpart IIII shall do all of the following: (40 CFR 60.4211(a))

1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; (40 CFR 60.4211(a)(1))

2) Change only those emission-related settings that are permitted by the manufacturer; (40 CFR 60.4211(a)(2))

vi. For a pre-2007 model year stationary CI internal combustion engine that shall comply with the emission standards specified in Table 1, the owner or operator shall demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section. (40 CFR 60.4211(b))

1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's specifications. (40 CFR 60.4211(b)(1))

2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test shall have been conducted using the same methods specified in this subpart and these methods shall have been followed correctly. (40 CFR 60.4211(b)(2))

3) Keeping records of engine manufacturer data indicating compliance with the standards. (40 CFR 60.4211(b)(3))

4) Keeping records of control device vendor data indicating compliance with the standards. (40 CFR 60.4211(b)(4))

5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in the Testing section of this permit, as applicable. (40 CFR 60.4211(b)(5))

vii. For a 2007 model year and later stationary CI internal combustion engine that shall comply with the emission standards specified in Table 2 and Table 3, the owner or operator shall purchase an engine certified to the emission standards in Table 2 and Table 3, as applicable for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer’s specifications. (40 CFR 60.4211(c))

viii. For a modified or reconstructed stationary CI internal combustion engine that shall comply with the emission standards specified in Table 2, Table 3, or the Testing section of this permit, the owner or operator shall demonstrate compliance according to one of the methods specified in paragraphs (e)(1) or (2) of this section. (40 CFR 60.4211(e))

1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in Table 2, Table 3, or the Testing section of this permit, as applicable. (40 CFR 60.4211(e)(1))

2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in the Testing section of this permit, as appropriate. The test shall be conducted within 60 days after the engine commences operation after the modification or reconstruction. (40 CFR 60.4211(e)(2))

ix. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If the owner or operator does not operate the engine according to the requirements below, the engine will not be considered an emergency engine under this subpart and shall meet all requirements for non-emergency engines. (40 CFR 60.4211(f))

1) There is no time limit on the use of emergency stationary ICE in emergency situations. (40 CFR 60.4211(f)(1))

2) The owner or operator may operate the emergency stationary ICE for any combination of the purposes specified in 60 CFR 60.4211(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 60

CFR 60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by this paragraph. (40 CFR 60.4211(f)(2)).

(a) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (40 CFR 60.4211(f)(2)(i))

(b) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. (40 CFR 60.4211(f)(2)(ii))

(c) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. (40 CFR 60.4211(f)(2)(iii))

3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (40 CFR 60.4211(f)(3))

(a) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: (40 CFR 60.4211(f)(3)(i))

vi) The engine is dispatched by the local balancing authority or local transmission and distribution system operator; (40 CFR 60.4211(f)(3)(i)(A))

vii) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. (40 CFR 60.4211(f)(3)(i)(B))

viii) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. (40 CFR 60.4211(f)(3)(i)(C))

ix) The power is provided only to the facility itself or to support the local transmission and distribution system. (40 CFR 60.4211(f)(3)(i)(D))

x) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for

dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator. (40 CFR 60.4211(f)(3)(i)(E))

b. **Fuel Requirements**

Beginning October 1, 2010, the owner or operator of a stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that uses diesel fuel shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted: (40 CFR 60.4207(b))

1) Sulfur content: 15 parts per million (ppm) maximum for NR diesel fuel. (40 CFR 80.510(b)(1)(i))

2) A minimum cetane index of 40; or (40 CFR 80.510(b)(2)(i))

3) A maximum aromatic content of 35 volume percent. (40 CFR 80.510(b)(2)(ii))

S2. **Monitoring and Record Keeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **Unit Operation**

i. The owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines shall install a non-resettable hour meter prior to startup of the engine. (40 CFR 60.4209(a))

ii. The owner or operator is not required to submit an initial notification. Starting with the model years in Table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner shall record the time of operation of the engine and the reason the engine was in operation during that time. (40 CFR 60.4214(b))

Table 5 Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

Engine Power	Starting Model Year
$19 \leq kW < 56$ ($25 \leq hp < 75$)	2013
$56 \leq kW < 130$ ($75 \leq hp < 175$)	2012
$130 \leq kW \leq 375$ ($175 \leq hp \leq 500$)	2011

b. **Fuel Requirements**

The owner or operator shall maintain records of the fuel MSDS sheets and receipts showing dates, amounts of fuel purchased, sulfur content of fuel purchased and supplier's name and address, to show compliance with Specific Condition S1.b.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

If there are one or more emergency diesel generators that meet the description provided in this emission unit installed at the facility, the owner or operator shall submit compliance reports that include the information in this section. If there are no emergency diesel generators that meet the description provided in this emission unit installed at the facility, the owner or operator shall submit a negative declaration for Emission Unit IA-EG, to be included in the compliance report. (See General Condition 14)

a. **Unit Operation**

i. The owner or operator is not required to submit an initial notification. (40 CFR 60.4214(b))

ii. The owner or operator shall identify all periods of exceeding the hour limits specified in Specific Condition S1.a.ix during the reporting period. The compliance report shall include the following:

1) Identification of all periods during which a deviation occurred;

2) A description, including the magnitude, of the deviation;

3) If known, the cause of the deviation;

4) A description of all corrective actions taken to abate the deviation; and

5) If no deviations occur during a reporting period, the report shall contain a negative declaration.

iii. For an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in S1.a.ix.2)(b) and S1.a.ix.2)(c), or that operates for the purposes specified in S1.a.ix.3)(a), the owner or operator shall submit an annual report according to the requirements in the following paragraphs: (40 CFR 60.4214(d))

1) The report shall contain the following information: (40 CFR 60.4214(d)(1))

(a) Company name and address where the engine is located. (40 CFR 60.4214(d)(1)(i))

(b) Date of the report and beginning and ending dates of the reporting period. (40 CFR 60.4214(d)(1)(ii))

(c) Engine site rating and model year. (40 CFR 60.4214(d)(1)(iii))

(d) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place. (40 CFR 60.4214(d)(1)(iv))

(e) Hours operated for the purposes specified in 40 CFR 60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 60.4211(f)(2)(ii) and (iii). (40 CFR 60.4214(d)(1)(v))

(f) Number of hours the engine is contractually obligated to be available for the purposes specified in 40 CFR 60.4211(f)(2)(ii) and (iii). (40 CFR 60.4214(d)(1)(vi))

(g) Hours spent for operation for the purposes specified in 40 CFR 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 60.4211(f)(3)(i). The report shall also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine. (40 CFR 60.4214(d)(1)(vii))

2) The first report shall cover the calendar year 2015 and shall be submitted no later than March 31, 2016. Subsequent reports for each calendar year shall be submitted as required by your operating permit. (40 CFR 60.4214(d)(2))

3) The report shall be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report shall be submitted to the Administrator at the appropriate address listed in 40 CFR 60.4. (40 CFR 60.4214(d)(3))

b. **Fuel Requirements**

There are no routine compliance reporting requirements for this equipment.

S4. **Testing (Regulation 2.16, section 4.1.9.3)**

a. **Testing Requirements (40 CFR 60, Subpart IIII)**

The owner or operator of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart shall do so according to the following paragraphs: (40 CFR 60.4212)

i. The performance test shall be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder. (40 CFR 60.4212(a))

ii. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 shall not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039. (40 CFR 60.4212(b))

iii. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in Table 2 or Table 3, as applicable, shall not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in Table 2 or Table 3, determined from the following equation: (40 CFR 60.4212(c))

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \qquad \text{(Eq. 1)}$$

Where:

STD = The standard specified for that pollutant in Table 2 or Table 3.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in Table 2 or Table 3 may follow the testing procedures specified in 40 CFR 60.4213 of this subpart, as appropriate.

iv. Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in Table 1 shall not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in Table 1, determined from the following equation: (40 CFR 60.4212(d))

Where:
STD = The standard specified for that pollutant in Table 1.

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in Table 1 may follow the testing procedures specified in 40 CFR 60.4213, as appropriate.

v. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 shall not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c). (40 CFR 60.4212(e))

b. **General Testing Requirements**

The owner or operator shall construct all equipment in such a manner that the following testing requirements can be performed.

i. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of

the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.

ii. The owner or operator shall submit written compliance test plans (protocol) for the test. They shall include the EPA test methods that will be used for compliance testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators (e.g. pressure drop, minimum combustion chamber temperature) that will be monitored during the performance test. The compliance test plans shall be furnished to the District at least 30 days prior to the actual date of the performance test. Attached to the permit is a Protocol Checklist for Performance Test for the information to be submitted in the protocol.

iii. The owner or operator shall be responsible for obtaining and analyzing audit samples when the EPA Reference Method is used to analyze samples to demonstrate compliance with the source's emission regulation. The audit samples shall be available for verification by the District during the onsite testing. (See Comment 3)

iv. The owner or operator shall provide the District at least 10 days prior notice of any performance test to afford the District the opportunity to have an observer present.

v. The owner or operator shall furnish the District with a written report of the results of the performance test within 60 days following the actual date of completion of the performance test.

IA2 Comments

1. This unit is subject to 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, because it involves a stationary reciprocating internal combustion engine (RICE) located at a major source of HAP emissions. The proposed new stationary RICE meets the definition in 40 CFR 63.6675 of an emergency stationary RICE, which, per 40 CFR 63.6590(b)(1)(i), does not have to meet the requirements of 40 CFR 63 Subpart ZZZZ and of 40 CFR 63 Subpart A.
2. The associated storage tank for diesel fuel is exempt from District permitting requirements in accordance with Regulation 1.02, section 3.9.2.
3. Per an EPA rule change ("Restructuring of the Stationary Source Audit Program." Federal Register 75:176 (September 13, 2010) pp 55636-55657), sources became responsible for obtaining the audit samples directly from accredited audit sample suppliers, not the regulatory agencies.
4. Potential emissions for this permitted operation are greatest for nitrogen oxides (NOx). Based on AP-42 Emission Factors and 500 hours per year for an emergency generator, as defined by EPA, the potential NOx emissions for this permitted operation is less than 5 tons per year.
5. This insignificant emission unit allows the companies to install emergency engines that meet the description without submitting construction applications.

Appendix A: HON MACT requirements:

HON Applicable Sections:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 63 Subpart A	General Provisions	40 CFR 63.1 through 40 CFR 63.15, except as noted in Table 3 to Subpart F of Part 63, Table 1A to Subpart G of Part 63, and Table 4 to Subpart H of Part 63
40 CFR 63 Subpart F	National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry	40 CFR 63.100, 40 CFR 63.101, 40 CFR 63.102, 40 CFR 63.103, 40 CFR 63.104, 40 CFR 63.105, 40 CFR 63.106, 40 CFR 63.107
40 CFR 63 Subpart G	National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater	40 CFR 63.110 through 40 CFR 63.123, 40 CFR 63.126 through 40 CFR 63.149, 40 CFR 63.150, 40 CFR 63.151, and 40 CFR 63.152
40 CFR 63 Subpart H	National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks	40 CFR 63.160, 40 CFR 63.161, 40 CFR 63.162, 40 CFR 63.163, 40 CFR 63.164, 40 CFR 63.165, 40 CFR 63.166, 40 CFR 63.167, 40 CFR 63.168, 40 CFR 63.169, 40 CFR 63.170, 40 CFR 63.171, 40 CFR 63.172, 40 CFR 63.173, 40 CFR 63.174, 40 CFR 63.175, 40 CFR 63.176, 40 CFR 63.177, 40 CFR 63.178, 40 CFR 63.179, 40 CFR 63.180, 40 CFR 63.181, 40 CFR 63.182, 40 CFR 63.183

HON Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **HAP (non-LDAR) (Regulation 5.02, 40 CFR 63 Subparts A, F, G, and H)**

i. The owner or operator of Silver Process Formaldehyde plant controlled by the silver plant boiler (C6) and the Metal Oxide Process Formaldehyde plant controlled by the MO plant catalytic oxidizer (C5), which are Group 1 process vents, shall each reduce emission of total organic hazardous air pollutant by 98 weight percent or to a concentration of 20 parts per million by volume, whichever is less stringent. The emission reduction or concentration shall be calculated on a dry basis, corrected to 3 percent oxygen. (Regulation 5.02, 40 CFR 63.113(a)(2))

ii. Compliance with paragraph (a)(2) of this section of the federal regulation may be achieved by using any combination of combustion, recovery, and/or recapture devices, except that a recovery device may not be used to comply with paragraph (a)(2) of this section of the federal regulation by reducing emissions of total organic hazardous air pollutants by 98 weight-percent, except as provided in paragraph (a)(2)(ii) of this section of the federal regulation. (40 CFR 63.113(a)(2)(i))

iii. An owner or operator may use a recovery device, alone or in combination with one or more combustion or recapture devices, to reduce emissions of total organic hazardous air pollutants by 98 weight-percent if all the conditions of paragraphs (a)(2)(ii)(A) through (a)(2)(ii)(D) of this section of the federal regulation are met. (40 CFR 63.113(a)(2)(ii))

1) The recovery device (and any combustion device or recapture device which operates in combination with the recovery device to reduce emissions of total organic hazardous air pollutants by 98 weight-percent) was installed before the date of proposal of the subpart of this part 63 that makes this subpart G applicable to process vents in the chemical manufacturing process unit. (40 CFR 63.113(a)(2)(ii)(A))

2) The recovery device that will be used to reduce emissions of total organic hazardous air pollutants by 98 weight-percent is the last recovery device before emission to the atmosphere. (40 CFR 63.113(a)(2)(ii)(B))

3) The recovery device, alone or in combination with one or more combustion or recapture devices, is capable of reducing emissions of total organic hazardous air pollutants by 98 weight-percent, but is not capable of reliably reducing emissions of total organic hazardous air pollutants to a concentration of 20 parts per million by volume. (40 CFR 63.113(a)(2)(ii)(C))

4) If the owner or operator disposed of the recovered material, the recovery device would comply with the requirements of this subpart for recapture devices. (40 CFR 63.113(a)(2)(ii)(D))

iv. If a boiler or process heater is used to comply with the percent reduction requirement or concentration limit specified in paragraph (a)(2) of this section of the federal regulation, then the vent stream shall be introduced into the flame zone of such a device. (40 CFR 63.113(b))

v. Each owner or operator of a process vent that uses a combustion device to comply with the requirements in 40 CFR 63.113 (a)(1) or (a)(2) of this subpart, or that uses a recovery device or recapture device to comply with the requirements in 40 CFR 63.113(a)(2) of this subpart, shall install monitoring equipment specified in paragraph (a)(1), (a)(2), (a)(3), (a)(4), or (a)(5) of this section of the federal regulation, depending on the type of device used. All monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately. (40 CFR 63.114(a))

vi. Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required. (40 CFR 63.114(a)(1))

vii. Where a catalytic incinerator is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed. (40 CFR 63.114(a)(1)(ii)) (See Comment 8)

viii. The owner or operator of a process vent shall comply with paragraph (d)(1) or (2) of this section of the federal regulation for any bypass line between the origin of the gas stream (i.e., at an air oxidation reactor, distillation unit, or reactor as identified in 40 CFR 63.107(b)) and the point where the gas stream reaches the process vent, as described in 40 CFR 63.107, that could divert the gas stream directly to the atmosphere. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to this paragraph (d). (40 CFR 63.114(d))

1) Properly install, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. Records shall be generated as specified in 40 CFR 63.118(a)(3). The flow indicator shall be installed at the entrance to any bypass line that could divert the gas stream to the atmosphere; (40 CFR 63.114(d)(1)) or

2) Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the non-diverting position and the gas stream is not diverted through the bypass line. (40 CFR 63.114(d)(2))

ix. For Group 1 storage vessels (E27, E34, E35, E36, and E354), the owner or operator shall reduce hazardous air pollutants emissions to the atmosphere either by operating and maintaining a fixed roof and internal floating roof, an external floating roof, an external floating roof converted to an internal floating roof, a closed vent system and control device, routing the emissions to a process or a fuel gas system, or vapor balancing in accordance with the requirements in 40 CFR 63.119(b), (c), (d) , (e), (f) , or (g), or equivalent as provided in 40 CFR 63.121. (40 CFR 63.119(a)(1))

x. For Unit 1 Group 2 storage vessels, loading racks, and process vents (E1, E2, E3, E4, E6, E7, E8, E9, E10, E11, E13.1 through 13.60, E29, E30, E31, E32, and E37), there are no non-LDAR HAP standards for these emission points. (Board Order #2142, dated August 15, 2001)

xi. For Unit 7 Group 2 storage vessels, loading racks, and process vents (E361, E364, E365, and E366), there are no non-LDAR HAP standards for these emission points. (Board Order #2142, dated August 15, 2001) (See Comment 2)

b. **HAP (LDAR) (Regulation 5.02, 40 CFR 63 Subparts A, F, G, and H)**

i. For pumps in light liquid service, the instrument reading, as determined by the method as specified in 40 CFR 63.180(b), that defines a leak in each phase of the standard is for Phase III, an instrument reading of 5,000 parts per million or greater above background level, as specified in 40 CFR 63.180(b) and (c), for pumps handling polymerizing monomers and 1,000 parts per million or greater above background level, as specified in 40 CFR 63.180(b) and (c), for all other pumps. (40 CFR 63.163(b)(2)(iii)(A) and (C)) For pumps to which a 1,000 parts per million above background level, as specified in 40 CFR 63.180(b) and (c), leak definition applies, repair is not required unless an instrument reading of 2,000 parts per million or greater above background level, as specified in 40 CFR 63.180(b) and (c), is detected. (40 CFR 63.163(c)(3))

ii. For valves in gas vapor service and/or in light liquid service, the instrument reading that defines a leak in each phase of the standard is for Phase III, an instrument reading of 500 parts per million or greater above background level, as specified in 40 CFR 63.180(b) and (c). (40 CFR 63.168(b)(iii))

iii. For agitators in gas/vapor service and/or in light liquid service, an instrument reading of 10,000 parts per million or greater above background level, as specified in 40 CFR 63.180(b) and (c), indicates a leak is detected. (40 CFR 63.173(a)(2))

iv. For connectors in gas/vapor and/or in light liquid service, an instrument reading of 500 parts per million or greater above background level, as specified in 40 CFR 63.180(b) and (c), indicates a leak is detected. (40 CFR 63.174(a)(2))

v. For pressure relief devices in gas/vapor service that are equipped with a rupture disk upstream of the pressure relief device are exempt from the requirements of 40 CFR 63.165(a) and (b), provided the owner or operator after each pressure release, installs a rupture disk upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 63.171. (40 CFR 63.165(d)(1) and (2))

vi. For open ended valves or lines,

1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 63.162(b) and paragraphs (d) and (e) of this section of the federal regulation. (40 CFR 63.167(a)(1))

2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance or repair. (40 CFR 63.167(a)(2))

3) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. (40 CFR 63.167(b))

4) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with 40 CFR 63.167(a) at all other times. (40 CFR 63.167(c))

5) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 63.167(a), (b) and (c). (40 CFR 63.167(d))

6) Open-ended valves or lines containing materials which would autocatalytically polymerize or, would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 63.167(a) through (c) are exempt from the requirements of 40 CFR 63.167(a) through (c). (40 CFR 63.167(e))

vii. If an instrument reading of 500 parts per million or greater above background level, as specified in 40 CFR 63.180(b) and (c), is measured when monitoring instrumentation systems and pressure relief devices in liquid service, then a leak is detected. (40 CFR 63.169(b))

viii. Compliance with the equipment leak standard will be determined by review of the records required by 40 CFR 63.181 and the reports required by 40 CFR 63.182 of 40 CFR Part 63, Subpart H, review of performance test results, and by inspections. (40 CFR 63.162(a))

ix. Each piece of equipment in a process unit to which the equipment leak standard applies shall be identified such that it can be distinguished readily from equipment that is not subject to the equipment leaks standard. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, or by designation of process unit boundaries by some form of weatherproof identification. Equipment that is in vacuum service is excluded from the requirements of the equipment leak standard. Equipment that is in organic hazardous air pollutant service less than 300 hours per calendar year is excluded from the requirements of 40 CFR 63.163 through 40 CFR 63.174 and 40 CFR 63.178 of the equipment leak standard if it is identified as required in 40 CFR 63.181(j) of the standard. (40 CFR 63.162(c) through (e))

x. When any leak is detected as specified in 40 CFR 63.163 and 63.164; 40 CFR 63.168 and 63.169; and 40 CFR 63.172 through 63.174 of this subpart, the following requirements apply: (40 CFR 63 Subpart (f))

1) Clearly identify the leaking equipment. (40 CFR 63.162(f)(1))

2) The identification on a valve may be removed after it has been monitored as specified in 40 CFR 63.168(f)(3) and 40 CFR 63.175(e)(7)(i)(D) of 40 CFR Part 63, Subpart H, and no leak has been detected during the follow-up monitoring. If the owner or operator elects to comply using the provisions of 40 CFR 63.174(c)(1)(i) of 40 CFR Part 63, Subpart H, the identification on a connector may be removed after it is monitored as specified in 40 CFR 63.174(c)(1)(i) and no leak is detected during that monitoring. (40 CFR 63.162(f)(2))

3) The identification which has been placed on equipment determined to have a leak, except for a valve or for a connector that is subject to the provisions of 40 CFR 63.174(c)(1)(i), may be removed after it is repaired. (40 CFR 63.162(f)(3))

xi. All terms in the equipment leak standard that define a period of time for completion of required tasks (such as weekly, monthly, quarterly, or annual), refer to the standard calendar periods unless specified otherwise in the section or subsection of the standard that imposes the requirement. However, if the initial compliance date does not coincide with the beginning of the standard calendar period, an owner or operator may elect to utilize a period beginning on the compliance date, or may elect to comply in accordance with the provisions of 40 CFR 63.162(g)(2) or (g)(3). (40 CFR 63.162(g))

xii. In all cases where the provisions of the equipment leak standard require an owner or operator to repair leaks by a specified time after the leak is detected, it is a violation of the equipment leak standard to fail to take action to repair the leaks within the specified time. If action is taken to repair the leaks within the specified time, failure of that action to successfully repair the leak is not a violation of the equipment leaks standard. However, if the repairs are unsuccessful, a leak is detected and the owner or operator shall take further action as required by applicable provisions of the equipment leak standard. (40 CFR 63.162(h))

xiii. The owner or operator may delay the repair of equipment for which leaks have been detected if repair within 15 days is technically infeasible without a process unit shutdown. The owner or operator shall repair such equipment by the end of the next process unit shutdown. The owner or operator may delay the repair of equipment for which leaks have been detected if the equipment is isolated from the process and does not remain in organic HAP service. The owner or operator may delay repair of valves, connectors, and agitators for which leaks have been detected if the owner or operator determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and when repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 40 CFR 63.172. The owner or operator may delay repair of pumps if the repair requires replacing the existing seal design with (1) a new system that the owner or operator has determined will provide better performance under the provisions of 40 CFR 63.176(d); or (2) a dual mechanical seal system that meets the requirements of 40 CFR 63.163(e); or the repair requires replacing the pump with a pump that meets the requirements of 40 CFR 63.163(f); or the owner or operator installs a closed-vent system and control device meeting the requirements of 40 CFR 63.163(g); and such repair, replacement, or installation is completed as soon as practicable, but not later than 6 months after the leak was detected. Finally, for valves, the owner or operator may delay repair beyond a process unit shutdown if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair for such valves beyond the second process unit shutdown will not be allowed unless the third process unit shutdown occurs sooner than 6 months after the first process unit shutdown. (40 CFR 63.171)

S2. **Monitoring and Record Keeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **HAP (Non-LDAR)**

i. For maintenance wastewaters, (40 CFR 63.105(a))

1) The owner or operator shall prepare a description of maintenance procedures for management of wastewaters generated from the emptying and purging of equipment in the process during temporary shutdowns for inspections, maintenance, and repair (i.e., a maintenance-turnaround) and during periods which are not shutdowns (i.e., routine maintenance). The descriptions shall:

(a) Specify the process equipment or maintenance tasks that are anticipated to create wastewater during maintenance activities. (40 CFR 63.105(b)(1))

(b) Specify the procedures that will be followed to properly manage the wastewater and control organic HAP emissions to the atmosphere; and (40 CFR 63.105(b)(2))

(c) Specify the procedures to be followed when clearing materials from process equipment. (40 CFR 63.105(b)(3))

2) The owner or operator shall modify and update the information required by 40 CFR 63.105(b) as needed following each maintenance procedure based on the actions taken and the wastewaters generated in the preceding maintenance procedure. (40 CFR 63.105(c))

ii. Each owner or operator subject to the control provisions for Group 1 process vents in 40 CFR 63.113(a) or the provisions for Group 2 process vents with a TRE index value greater than 1.0 but less than or equal to 4.0 in 40 CFR 63.113(d) shall: (40 CFR 63.117(a))

1) Keep an up-to-date, readily accessible record of the data specified in paragraphs (a)(4) through (a)(8) of this section of the federal regulation, as applicable, (40 CFR 63.117(a)(1)) and

2) Include the data in paragraphs (a)(4) through (a)(8) of this section of the federal regulation in the Notification of Compliance Status report as specified in 40 CFR 63.152(b) of this subpart. (40 CFR 63.117(a)(2))

3) If any subsequent TRE determinations or performance tests are conducted after the Notification of Compliance Status has been submitted, report the data in paragraphs (a)(4) through (a)(8) of this section of the federal regulation in the next Periodic Report as specified in 40 CFR 63.152(c) of this subpart. (40 CFR 63.117(a)(3))

4) Record the following when using a combustion device to achieve a 98 weight percent reduction in organic HAP or an organic HAP concentration of 20 parts per million by volume, as specified in 40 CFR 63.113(a)(2) of this subpart: (40 CFR 63.117(a)(4))

(a) The parameter monitoring results for incinerators, catalytic incinerators, boilers or process heaters specified in table 3 of this subpart, and averaged over the same time period of the performance testing. (40 CFR 63.117(a)(4)(i))

(b) For an incinerator, the percent reduction of organic HAP or TOC achieved by the incinerator determined as specified in 40 CFR 63.116(c) of this subpart, or the concentration of organic HAP or TOC (parts per million by volume, by compound) determined as specified in 40 CFR 63.116(c) of this subpart at the outlet of the incinerator on a dry basis corrected to 3 percent oxygen. (40 CFR 63.117(a)(4)(ii))

(c) For a boiler or process heater, a description of the location at which the vent stream is introduced into the boiler or process heater. (40 CFR 63.117(a)(4)(iii))

iii. For catalytic oxidizer (C5) each parameter monitored according to tables 3 or 4 of this subpart or paragraph (e) of this section of the federal regulation, the owner or operator shall establish a

range for the parameter that indicates proper operation of the control or recovery device. In order to establish the range, the information required in 40 CFR 63.152(b) of this subpart shall be submitted in the Notification of Compliance Status or the operating permit application or amendment. (40 CFR 63.117(f))

iv. Each owner or operator using a control device to comply with 40 CFR 63.113 (a)(1) or (a)(2) of this subpart shall keep the following records up-to-date and readily accessible: (40 CFR 63.118(a))

1) Continuous records of the equipment operating parameters specified to be monitored under 40 CFR 63.114(a) of this subpart and listed in table 3 of this subpart or specified by the Administrator in accordance with 40 CFR 63.114(c) and 40 CFR 63.117(e) of this subpart. (40 CFR 63.118(a)(1))

2) Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in 40 CFR 63.152(f). (40 CFR 63.118(a)(2))

3) Hourly records of whether the flow indicator specified under 40 CFR 63.114(d)(1) was operating and whether a diversion was detected at any time during the hour, as well as records of the times and durations of all periods when the gas stream is diverted to the atmosphere or the monitor is not operating. (40 CFR 63.118(a)(3))

4) Where a seal mechanism is used to comply with 40 CFR 63.114(d)(2) of this subpart, hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanism has been done, and shall record the duration of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has broken. (40 CFR 63.118(a)(4))

v. The owner or operator who elects to use a fixed roof and an internal floating roof, as defined in 40 CFR 63.111 of this subpart, to comply with the requirements of paragraph (a)(1) of this section of the federal regulation shall comply with the requirements specified in paragraphs (b)(1) through (b)(6) of this section of the federal regulation. (40 CFR 63.119(b))

Note: The intent of paragraphs (b)(1) and (b)(2) of this section of the federal regulation is to avoid having a vapor space between the floating roof and the stored liquid for extended periods. Storage vessels may be emptied for purposes such as routine storage vessel maintenance, inspections, petroleum liquid deliveries, or transfer operations. Storage vessels where liquid is left on walls, as bottom clingage, or in pools due to floor irregularity are considered completely empty.

1) The internal floating roof shall be floating on the liquid surface at all times except when the floating roof must be supported by the leg supports during the periods specified in paragraphs (b)(1)(i) through (b)(1)(iii) of this section of the federal regulation. (40 CFR 63.119(b)(1))

(a) During the initial fill. (40 CFR 63.119(b)(1)(i))

(b) After the vessel has been completely emptied and degassed. (40 CFR 63.119(b)(1)(ii))

(c) When the vessel is completely emptied before being subsequently refilled. (40 CFR 63.119(b)(1)(iii))

2) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical. (40 CFR 63.119(b)(2))

3) Each internal floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. Except as provided in paragraph (b)(3)(iv) of this

section of the federal regulation, the closure device shall consist of one of the devices listed in paragraph (b)(3)(i), (b)(3)(ii), or (b)(3)(iii) of this section of the federal regulation. (40 CFR 63.119(b)(3))

(a) A liquid-mounted seal as defined in 40 CFR 63.111 of this subpart. (40 CFR 63.119(b)(3)(i))

(b) A metallic shoe seal as defined in 40 CFR 63.111 of this subpart. (40 CFR 63.119(b)(3)(ii))

(c) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor- mounted, but both must be continuous seals. (40 CFR 63.119(b)(3)(iii))

(d) If the internal floating roof is equipped with a vapor-mounted seal as of December 31, 1992, the requirement for one of the seal options specified in paragraphs (b)(3)(i), (b)(3)(ii), and (b)(3)(iii) of this section of the federal regulation does not apply until the earlier of the dates specified in paragraphs (b)(3)(iv)(A) and (b)(3)(iv)(B) of this section of the federal regulation. (40 CFR 63.119(b)(3)(iv))

xi) The next time the storage vessel is emptied and degassed. (40 CFR 63.119(b)(3)(iv)(A))

xii) No later than 10 years after April 22, 1994. (40 CFR 63.119(b)(3)(iv)(B))

4) Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports. (40 CFR 63.119(b)(4))

5) Except as provided in paragraph (b)(5)(viii) of this section, each internal floating roof shall meet the specifications listed in paragraphs (b)(5)(i) through (b)(5)(vii) of this section of the federal regulation. (40 CFR 63.119(b)(5))

(a) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents is to provide a projection below the liquid surface. (40 CFR 63.119(b)(5)(i))

(b) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover or lid. The cover or lid shall be equipped with a gasket. (40 CFR 63.119(b)(5)(ii))

(c) Each penetration of the internal floating roof for the purposes of sampling shall be a sample well. Each sample well shall have a slit fabric cover that covers at least 90 percent of the opening. (40 CFR 63.119(b)(5)(iii))

(d) Each automatic bleeder vent shall be gasketed. (40 CFR 63.119(b)(5)(iv))

(e) Each rim space vent shall be gasketed. (40 CFR 63.119(b)(5)(v))

(f) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. (40 CFR 63.119(b)(5)(vi))

(g) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. (40 CFR 63.119(b)(5)(vii))

(h) If the internal floating roof does not meet any one of the specifications listed in paragraphs (b)(5)(i) through (b)(5)(vii) of this section of the federal regulation as of December 31, 1992, the requirement for meeting those specifications does not

apply until the earlier of the dates specified in paragraphs (b)(5)(viii)(A) and (b)(5)(viii)(B) of this section of the federal regulation. (40 CFR 63.119(b)(5)(viii))

xiii) The next time the storage vessel is emptied and degassed. (40 CFR 63.119(b)(5)(viii)(A))

xiv) No later than 10 years after April 22, 1994. (40 CFR 63.119(b)(5)(viii)(B))

6) Each cover or lid on any opening in the internal floating roof shall be closed (i.e., no visible gaps), except when the cover or lid must be open for access. Covers on each access hatch and each gauge float well shall be bolted or fastened so as to be air-tight when they are closed. Rim space vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. (40 CFR 63.119(b)(6))

vi. The owner or operator who elects to use a closed vent system and control device, as defined in 40 CFR 63.111 of this subpart, to comply with the requirements of paragraph (a)(1) or (a)(2) of this section of the federal regulation shall comply with the requirements specified in paragraphs (e)(1) through (e)(5) of this section of the federal regulation. (40 CFR 63.119(e))

1) Except as provided in paragraph (e)(2) of this section of the federal regulation, the control device shall be designed and operated to reduce inlet emissions of total organic HAP by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements of 40 CFR 63.11(b) of subpart A of this part. (40 CFR 63.119(e)(1))

2) If the owner or operator can demonstrate that a control device installed on a storage vessel on or before December 31, 1992 is designed to reduce inlet emissions of total organic HAP by greater than or equal to 90 percent but less than 95 percent, then the control device is required to be operated to reduce inlet emissions of total organic HAP by 90 percent or greater. (40 CFR 63.119(e)(2))

3) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of paragraph (e)(1) or (e)(2) of this section of the federal regulation, as applicable, shall not exceed 240 hours per year. (40 CFR 63.119(e)(3))

4) The specifications and requirements in paragraphs (e)(1) and (e)(2) of this section of the federal regulation for control devices do not apply during periods of planned routine maintenance. (40 CFR 63.119(e)(4))

5) The specifications and requirements in paragraphs (e)(1) and (e)(2) of this section of the federal regulation for control devices do not apply during a control system malfunction. (40 CFR 63.119(e)(5))

6) An owner or operator may use a combination of control devices to achieve the required reduction of total organic hazardous air pollutants specified in paragraph (e)(1) of this section of the federal regulation . An owner or operator may use a combination of control devices installed on a storage vessel on or before December 31, 1992 to achieve the required reduction of total organic hazardous air pollutants specified in paragraph (e)(2) of this section of the federal regulation. (40 CFR 63.119(e)(6))

vii. To demonstrate compliance with 40 CFR 63.119(b) of this subpart (storage vessel equipped with a fixed roof and internal floating roof) or with 40 CFR 63.119(d) of this subpart (storage vessel equipped with an external floating roof converted to an internal floating roof), the owner or operator shall comply with the requirements in paragraphs (a)(1) through (a)(7) of this section of the federal regulation. (40 CFR 63.120(a))

1) The owner or operator shall visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), according to the schedule specified in paragraphs (a)(2) and (a)(3) of this section of the federal regulation. (40 CFR 63.120(a)(1))

2) For vessels equipped with a single-seal system, the owner or operator shall perform the inspections specified in paragraphs (a)(2)(i) and (a)(2)(ii) of this section of the federal regulation. (40 CFR 63.120(a)(2))

(a) Visually inspect the internal floating roof and the seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill, or at least once every 12 months after the compliance date specified in 40 CFR 63.100 of subpart F of this part. (40 CFR 63.120(a)(2)(i))

(b) Visually inspect the internal floating roof, the seal, gaskets, slotted membranes, and sleeve seals (if any) each time the storage vessel is emptied and degassed, and at least once every 10 years after the compliance date specified in 40 CFR 63.100 of subpart F of this part. (40 CFR 63.120(a)(2)(ii))

3) For vessels equipped with a double-seal system as specified in 40 CFR 63.119(b)(3)(iii) of this subpart, the owner or operator shall perform either the inspection required in paragraph (a)(3)(i) of this section of the federal regulation or the inspections required in both paragraphs (a)(3)(ii) and (a)(3)(iii) of this section of the federal regulation.(40 CFR 63.120(a)(3))

(a) The owner or operator shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes, and sleeve seals (if any) each time the storage vessel is emptied and degassed and at least once every 5 years after the compliance date specified in 40 CFR 63.100 of subpart F of this part; (40 CFR 63.120(a)(3)(i)) or

(b) The owner or operator shall visually inspect the internal floating roof and the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill, or at least once every 12 months after the compliance date specified in 40 CFR 63.100 of subpart F of this part, (40 CFR 63.120(a)(3)(ii)) and

(c) Visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes, and sleeve seals (if any) each time the vessel is emptied and degassed and at least once every 10 years after the compliance date specified in 40 CFR 63.100 of subpart F of this part. (40 CFR 63.120(a)(3)(iii))

viii. If during the inspections required by paragraph (a)(2)(i) or (a)(3)(ii) of this section of the federal regulation, the internal floating roof is not resting on the surface of the liquid inside the storage vessel and is not resting on the leg supports; or there is liquid on the floating roof; or the seal is detached; or there are holes or tears in the seal fabric; or there are visible gaps between the seal and the wall of the storage vessel, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 calendar days. If a failure that is detected during inspections required by paragraph (a)(2)(i) or (a)(3)(ii) of this section of the federal regulation cannot be repaired within 45 calendar days and if the vessel cannot be emptied within 45 calendar days, the owner or operator may utilize up to 2 extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as practical. (40 CFR 63.120(a)(4))

ix. Except as provided in paragraph (a)(6) of this section of the federal regulation, for all the inspections required by paragraphs (a)(2)(ii), (a)(3)(i), and (a)(3)(iii) of this section of the federal regulation, the owner or operator shall notify the Administrator in writing at least 30 calendar

days prior to the refilling of each storage vessel to afford the Administrator the opportunity to have an observer present. (40 CFR 63.120(a)(5))

x. If the inspection required by paragraph (a)(2)(ii), (a)(3)(i), or (a)(3)(iii) of this section of the federal regulation is not planned and the owner or operator could not have known about the inspection 30 calendar days in advance of refilling the vessel, the owner or operator shall notify the Administrator at least 7 calendar days prior to the refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, the notification including the written documentation may be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to refilling. (40 CFR 63.120(a)(6))

xi. If during the inspections required by paragraph (a)(2)(ii), (a)(3)(i), or (a)(3)(iii) of this section of the federal regulation, the internal floating roof has defects; or the primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal has holes, tears, or other openings in the seal or the seal fabric; or the gaskets no longer close off the liquid surface from the atmosphere; or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with organic HAP. (40 CFR 63.120(a)(7))

xii. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of 40 CFR40 CFR 63.119 through 40 CFR 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in 40 CFR 63.150 of this subpart. (40 CFR 63.123(a))

xiii. An owner or operator who elects to comply with 40 CFR 63.119(b) of this subpart shall keep a record that each inspection required by 40 CFR 63.120(a) of this subpart was performed.(40 CFR 63.123(c))

xiv. An owner or operator who uses the by-pass provisions of 40 CFR 63.119(f)(3) of this subpart shall keep in a readily accessible location the records specified in paragraphs (h)(1) through (h)(3) of this section of the federal regulation. (40 CFR 63.123(h))

1) The reason it was necessary to by-pass the process equipment or fuel gas system; (40 CFR 63.123(h)(1))

2) The duration of the period when the process equipment or fuel gas system was by-passed; (40 CFR 63.123(h)(2))

3) Documentation or certification of compliance with the applicable provisions of 40 CFR 63.119(f)(3)(i) through 40 CFR 63.119(f)(3)(iii). (40 CFR 63.123(h)(3))

xv. For each Group 2 transfer rack, the owner or operator shall maintain records as required in 40 CFR 63.130(f). No other provisions for transfer racks apply to the Group 2 transfer rack. (40 CFR 63.126(c))

xvi. Each owner or operator of a Group 1 or Group 2 transfer rack shall record, update annually, and maintain the information specified in paragraphs (f)(1) through (f)(3) of this section of the federal regulation in a readily accessible location on site: (40 CFR 63.130(f))

1) An analysis demonstrating the design and actual annual throughput of the transfer rack; (40 CFR 63.130(f)(1))

2) An analysis documenting the weight-percent organic HAP's in the liquid loaded. Examples of acceptable documentation include but are not limited to analyses of the material and engineering calculations. (40 CFR 63.130(f)(2))

3) An analysis documenting the annual rack weighted average HAP partial pressure of the transfer rack. (40 CFR 63.130(f)(3))

(a) For Group 2 transfer racks that are limited to transfer of organic HAP's with partial pressures less than 10.3 kilopascals, documentation is required of the organic HAP's (by compound) that are transferred. The rack weighted average partial pressure does not need to be calculated. (40 CFR 63.130(f)(3)(i))

(b) For racks transferring one or more organic HAP's with partial pressures greater than 10.3 kilopascals, as well as one or more organic HAP's with partial pressures less than 10.3 kilopascals, a rack weighted partial pressure shall be documented. The rack weighted average HAP partial pressure shall be weighted by the annual throughput of each chemical transferred. (40 CFR 63.130(f)(3)(ii))

xvii. For the Group 2 process wastewater, the owner or operator shall keep in a readily accessible location the following records: (40 CFR 63.147(b)(8))

1) Process unit identification and description of the process unit. (40 CFR 63.147(b)(8)(i))

2) Stream identification code. (40 CFR 63.147(b)(8)(ii))

3) For existing sources, concentration of table 9 compound(s) in parts per million, by weight. For new sources, concentration of table 8 and/or table 9 compound(s) in parts per million, by weight. Include documentation of the methodology used to determine concentration. (40 CFR 63.147(b)(8)(iii))

4) Flow rate in liter per minute. (40 CFR 63.147(b)(8)(iv))

xviii. Owners or operators required to keep continuous records by 40 CFR 63.118, 40 CFR 63.130, 40 CFR 63.147, 40 CFR 63.150, or other sections of this subpart shall keep records as specified in paragraphs (f)(1) through (f)(7) of this section of the federal regulation, unless an alternative recordkeeping system has been requested and approved under 40 CFR 63.151(f) or (g) or 40 CFR 63.152(e) or under 40 CFR 63.8(f) of subpart A of this part, and except as provided in paragraph (c)(2)(ii)(C) of this section of the federal regulation or in paragraph (g) of this section of the federal regulation. If a monitoring plan for storage vessels pursuant to 40 CFR 63.120(d)(2)(i) requires continuous records, the monitoring plan shall specify which provisions, if any, of paragraphs (f)(1) through (f)(7) of this section of the federal regulation apply. (40 CFR 63.152(f))

1) The monitoring system shall measure data values at least once every 15 minutes. (40 CFR 63.152(f)(1))

2) The owner or operator shall record either: (40 CFR 63.152(f)(2))

(a) Each measured data value; (40 CFR 63.152(f)(2)(i)) or

(b) Block average values for 15-minute or shorter periods calculated from all measured data values during each period or at least one measured data value per minute if measured more frequently than once per minute. (40 CFR 63.152(f)(2)(ii))

3) If the daily average value of a monitored parameter for a given operating day is within the range established in the Notification of Compliance Status or operating permit, the owner or operator shall either: (40 CFR 63.152(f)(3))

(a) Retain block hourly average values for that operating day for 5 years and discard, at or after the end of that operating day, the 15-minute or more frequent average values and readings recorded under paragraph (f)(2) of this section of the federal regulation; (40 CFR 63.152(f)(3)(i)) or

(b) Retain the data recorded in paragraph (f)(2) of this section of the federal regulation for 5 years. (40 CFR 63.152(f)(3)(ii))

4) If the daily average value of a monitored parameter for a given operating day is outside the range established in the Notification of Compliance Status or operating permit, the owner or operator shall retain the data recorded that operating day under paragraph (f)(2) of this section of the federal regulation for 5 years. (40 CFR 63.152(f)(4))

5) Daily average values of each continuously monitored parameter shall be calculated for each operating day, and retained for 5 years, except as specified in paragraphs (f)(6) and (f)(7) of this section of the federal regulation. (40 CFR 63.152(f)(5))

(a) The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day. The average shall cover a 24-hour period if operation is continuous, or the number of hours of operation per operating day if operation is not continuous. (40 CFR 63.152(f)(5)(i))

(b) The operating day shall be the period defined in the operating permit or the Notification of Compliance Status. It may be from midnight to midnight or another daily period. (40 CFR 63.152(f)(5)(ii))

6) If all recorded values for a monitored parameter during an operating day are within the range established in the Notification of Compliance Status or operating permit, the owner or operator may record that all values were within the range and retain this record for 5 years rather than calculating and recording a daily average for that operating day. For these operating days, the records required in paragraph (f)(3) of this section of the federal regulation shall also be retained for 5 years. (40 CFR 63.152(f)(6))

7) Monitoring data recorded during periods identified in paragraphs (f)(7)(i) through (f)(7)(v) of this section of the federal regulation shall not be included in any average computed under this subpart. Records shall be kept of the times and durations of all such periods and any other periods during process or control device operation when monitors are not operating. (40 CFR 63.152(f)(7))

(a) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments; (40 CFR 63.152(f)(7)(i))

(b) Start-ups; (40 CFR 63.152(f)(7)(ii))

(c) Shutdowns; (40 CFR 63.152(f)(7)(iii))

(d) Malfunctions; (40 CFR 63.152(f)(7)(iv))

(e) Periods of non-operation of the chemical manufacturing process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies. (40 CFR 63.152(f)(7)(v))

b. **HAP (LDAR)**

i. The owner or operator of a process unit subject to 40 CFR 63 Subpart H shall monitor each pump monthly to detect leaks by the method specified in 40 CFR 63.180(b) and shall comply with the requirements of 40 CFR 63.163(a) through (d), except as provided in 40 CFR 63.162(b) and 40 CFR 63.163(e) through (j). (40 CFR 63.163(b)(1))

ii. Each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, a leak is detected. (40 CFR 63.163(b)(3))

1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 63.163(c)(3) or 40 CFR 63.171. (40 CFR 63.163(c)(1))

2) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. First attempts at repair include, but are not limited to, the following practices where practicable. (40 CFR 63.163(c)(2))

(a) Tightening of packing gland nuts. (40 CFR 63.163(c)(2)(i))

(b) Ensuring that the seal flush is operating at design pressure and temperature. (40 CFR 63.163(c)(2)(ii))

3) The owner or operator shall continue to calculate percent leaking pumps on a source-wide basis, as determined by the owner or operator no later than the first monitoring period and reported in the first Periodic Report for Equipment Leaks required by 40 CFR 63.182 as referenced by 40 CFR 63.506(e)(6). If, in Phase III and calculated on a 6-month rolling average, the greater of either 10 percent of the pumps in a process unit or three pumps in a process unit leak, the owner or operator shall implement a quality improvement program for pumps that complies with the requirements of 40 CFR 63.l76. The number of pumps at a process unit shall be the sum of all the pumps in organic HAP service, except that pumps found leaking in a continuous process unit within 1 month after start-up of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only. (40 CFR 63.163(d)(1) through (3))

4) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 63.162(a) through (d), provided that each dual mechanical seal system is operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of 40 CFR 63.172; or equipped with a closed-loop system that purges the barrier fluid into a process stream. The barrier fluid shall not be in light liquid service. Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both. Each sensor shall be observed daily or equipped with an alarm unless the pump is located within the boundary of an unmanned plant site. Each pump equipped with such a dual mechanical seal system and barrier fluid system shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the pump shall be monitored as specified in 40 CFR 63.180(b) to determine if there is a leak of organic hazardous air pollutant(s) into the barrier fluid. If an instrument reading of 1,000 parts per million or greater is measured, a leak is detected. The owner or operator shall determine, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both. If indications of liquids dripping from the pump seal exceed these criteria, or if, based on these criteria, the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected. When a leak is detected, the owner or operator shall repair it as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 63.171. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. (40 CFR 63.163(e), including all subparagraphs)

5) Any pump that is designed with no externally actuated shaft penetrating the pump housing is exempt from the requirements of 40 CFR 63.163(a) through (c). (40 CFR 63.163(f))

6) Any pump that is designated as an unsafe-to-monitor pump, as described in 40 CFR 63.181(b)(7)(i), is exempt from the requirements of 40 CFR 63.163(b) through (e) if the owner or operator of the pump determines that the pump is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 63.163(b) through (d), and the owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable. (40 CFR 63.163(j), including all subparagraphs)

iii. The owner or operator shall monitor valves for leaks at the intervals specified below: (40 CFR 63.168(d))

1) At process units with 2 percent or greater leaking valves, calculated according to 40 CFR 63.168(e), the owner or operator shall monitor each valve once per month. (40 CFR 63.168(d)(1)(i))

2) At process units with less than 2 percent leaking valves, the owner or operator shall monitor each valve once each quarter, except as provided in paragraphs (d)(3) and (d)(4) of this section of the federal regulation. (40 CFR 63.168(d)(2))

3) At process units with less than 1 percent leaking valves, the owner or operator may elect to monitor each valve once every 2 quarters. (40 CFR 63.168(d)(3))

4) At process units with less than 0.5 percent leaking valves, the owner or operator may elect to monitor each valve once every 4 quarters. (40 CFR 63.168(d)(4))

5) When a leak is detected, the owner or operator shall repair the leak as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 63.171. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. When a leak has been repaired, the valve shall be monitored at least once within the first 3 months after its repair. The monitoring shall be conducted as specified in 40 CFR 63.180(b) and (c), as appropriate, to determine whether the valve has resumed leaking. In addition, any valve repaired on-line shall be monitored for two successive months after repair, using the method specified in 40 CFR 63.180(b), to satisfy the requirement of 40 CFR 63.175(e)(7)(i)(D). Periodic monitoring required by 40 CFR 63.168(b) through (d) may be used to satisfy the requirement to monitor the repaired valve within the first 3 months after its repair, if the timing of the monitoring period coincides with this timing. Alternatively, other monitoring may be performed to satisfy this remonitoring requirement, regardless of whether the timing of the monitoring period for periodic monitoring coincides with the time specified for this remonitoring requirement. If a leak is detected during such remonitoring, the owner or operator shall follow the provisions of 40 CFR 63.168(f)(3)(iii)(A) and (f)(3)(iii)(B) to determine whether that valve must be counted as a leaking valve for purposes of 40 CFR 63.168(e). 40 CFR 63.168(f)(3)(iii)(A) provides that if the owner or operator elected to use the periodic monitoring required by 40 CFR 63.168(b) through (d) to satisfy the remonitoring requirement, then the valve with a leak detected during the remonitoring shall be counted as a leaking valve for the purpose of calculating the percent leaking valves using the equations set forth in 40 CFR 63.168(e). 40 CFR 63.168(f)(3)(iii)(B) provides that if the owner or operator elected to use other monitoring, prior to the periodic monitoring required by 40 CFR 63.168(b) through (d), to satisfy the remonitoring requirement, then the valve shall be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be leaking. First attempts at repair include, but are not limited to, the following practices where practicable: (1) Tightening of bonnet bolts; (2) Replacement of bonnet bolts; (3) Tightening of packing gland nuts; and (4) Injection of lubricant into lubricated packing. (40 CFR 63.162(f)(2), which cross-references 40 CFR 63.175(e)(7)(1)(D), and 40 CFR 63.168(f) and (g))

6) For use in determining monitoring frequency, as specified in 40 CFR 63.168(d), the percent leaking valves shall be calculated as a rolling average of two consecutive monitoring periods for monthly, quarterly, or semiannual monitoring programs; and as an average of any three out of four consecutive monitoring periods for annual monitoring programs. Nonrepairable valves shall be included in the calculation of percent leaking valves the first time the valve is identified as leaking and nonrepairable and as required to comply with 40 CFR 63.168(e)(3)(ii). Otherwise, a number of nonrepairable valves (identified and included in the percent leaking calculation in a previous period) up to a maximum of 1 percent of the total number of valves in organic HAP service at a process

unit may be excluded from calculation of percent leaking valves for subsequent monitoring periods. 40 CFR 63.168(e)(3)(ii) provides that if the number of nonrepairable valves exceeds 1 percent of the total number of valves in organic HAP service at a process unit, the number of nonrepairable valves exceeding 1 percent of the total number of valves in organic HAP service shall be included in the calculation of percent leaking valves. (40 CFR 63.168(e)(2) and (e)(3), including subparagraphs)

7) Any valve that is designated as an unsafe-to-monitor valve, as described in 40 CFR 63.181(b)(7)(i), is exempt from the requirements of 40 CFR 63.168(b) through (f) if the owner or operator of the valve determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 63.168(b) through (d), and the owner or operator of the valve has a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable. Any valve that is designated as a difficult-to-monitor valve, as described in 40 CFR 63.181(b)(7)(ii), is exempt from the requirements of 40 CFR 63.168(b) through (d) if the owner or operator of the valve determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface or it is not accessible at anytime in a safe manner; the process unit within which the valve is located is an existing source; and the owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. (40 CFR 63.168(h) and (i))

iv. Each agitator shall be monitored monthly to detect leaks by the methods specified in 40 CFR 63.180(b), except as provided in 40 CFR 63.162(b). (40 CFR 63.173(a)(1))

v. Each agitator shall be checked by visual inspection each calendar week for indications of liquids dripping from the agitator. If there are indications of liquids dripping from the agitator, a leak is detected. (40 CFR 63.173(b))

1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 63.171. (40 CFR 63.173(c))

2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. (40 CFR 63.173(c)(2))

vi. For connectors, the owner or operator shall perform all monitoring of connectors at the frequencies specified in the following, except as provided in 40 CFR 63.171(c)(2): (40 CFR 63.174(b)(3))

1) Once per year (i.e., 12-month period), if the percent leaking connectors in the process unit was 0.5 percent or greater during the last required annual or biennial monitoring period. (40 CFR 63.174(b)(3)(i))

2) Once every 2 years, if the percent leaking connectors was less than 0.5 percent during the last required monitoring period. An owner or operator may comply with this paragraph by monitoring at least 40 percent of the connectors in the first year and the remainder of the connectors in the second year. The percent leaking connectors will be calculated for the total of all monitoring performed during the 2-year period. (40 CFR 63.174(b)(3)(ii))

3) If the owner or operator of a process unit in a biennial leak detection and repair program calculates less than 0.5 percent leaking connectors from the 2-year monitoring period, the owner or operator may monitor the connectors one time every 4 years. An owner or operator may comply with the requirements of this paragraph by monitoring at least 20 percent of the connectors each year until all connectors have been monitored within 4 years. (40 CFR 63.174(b)(3)(iii))

4) If a process unit complying with the requirements of paragraph (b) of 40 CFR 63.174 using a 4-year monitoring interval program has greater than or equal to 0.5 percent but less than 1 percent leaking connectors, the owner or operator shall increase the monitoring frequency to one time every 2 years. An owner or operator may comply with the requirements of this paragraph by monitoring at least 40 percent of the connectors in the first year and the remainder of the connectors in the second year. The owner or operator may again elect to use the provisions of Additional Condition S2.c.vi.3) when the percent leaking connectors decreases to less than 0.5 percent. (40 CFR 63.174(b)(3)(iv))

5) If a process unit complying with requirements of 40 CFR 63.174(b)(3)(iii) using a 4-year monitoring interval program has 1 percent or greater leaking connectors, the owner or operator shall increase the monitoring frequency to one time per year. The owner or operator may again elect to use the provisions of paragraph (b)(3)(iii) of this section of the federal regulation when the percent leaking connectors decreases to less than 0.5 percent. (40 CFR 63.174(b)(3)(v))

6) The owner or operator may choose not to monitor connectors that have been opened or otherwise had the seal broken. In this case, the owner or operator may not count nonrepairable connectors for the purpose of calculation of the percent leaking connectors in organic hazardous air pollutant service when using the equation specified in 40 CFR 63.174(i)(2) for the second and subsequent monitoring periods. If the owner or operator selects this option, the owner or operator shall calculate the percent leaking connectors for the second and subsequent monitoring periods by setting the nonrepairable component (C_{AN}) in the equation in 40 CFR 63.174(i)(2) to zero for all monitoring periods. In the alternative, the owner or operator may choose to monitor each connector that has been opened or has otherwise had the seal broken for leaks when it is reconnected or within the first three months after being returned to organic hazardous air pollutant service. If, under this alternative, the monitoring detects a leak, it shall be repaired according to the provisions of 40 CFR 63.174(d), unless it is determined to be nonrepairable, in which case it shall be counted as a nonrepairable connector for the purpose of calculating the percent leaking connectors using the equation in 40 CFR 63.174(i)(2) for the second and all subsequent monitoring periods. The owner or operator may switch between the two alternatives described in paragraphs (c)(1) (i) and (ii) of this section of the federal regulaion at the end of the current monitoring period, provided that the switch is reported in the next Periodic Report for Equipment Leaks as required by 40 CFR 63.182(d) as referenced by 40 CFR 63.506(e)(6), and begin the new alternative in annual monitoring. The initial monitoring in the new alternative shall be completed no later than 12 months after reporting the switch. (40 CFR 63.174(c)(1)(i) through (iii))

7) When a leaking connector is detected, the owner or operator shall repair the leak as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 63.174(g) and in 40 CFR 63.171. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. (40 CFR 63.174(d))

8) Any connector that is designated as an unsafe-to-monitor connector, as described in 40 CFR 63.181(b)(7)(i), is exempt from the connector monitoring requirements of paragraph (a) of this section of the federal regulation if: The owner or operator determines that the connector is unsafe to monitor because personnel would be exposed to an immediate danger as a result of complying with 40 CFR 63.174(a) through (e) and its subparagraphs; and the owner or operator has a written plan that requires monitoring of the connector as frequently as practicable during safe to monitor periods, but not more frequently than the periodic monitoring schedule that would otherwise be applicable. (40 CFR 63.174(f), (f)(1) and (f)(2))

9) Any connector that is designated as an unsafe-to-repair connector, as described in 40 CFR 63.181(b)(7)(iii), is exempt from the requirements of 40 CFR 63.174(a), (d) and (e)

if the owner or operator determines that repair personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 63.174(d), and the connector will be repaired before the end of the next scheduled process unit shutdown. (40 CFR 63.174(g), (g)(1) and (g)(2))

10) Any connector that is inaccessible or is ceramic or ceramic-lined (for example, porcelain, glass, or glass-lined), is exempt from the monitoring requirements of 40 CFR 63.174(a) and (c) and from the recordkeeping and reporting requirements of 40 CFR 63.181 and 40 CFR 63.182. An inaccessible connector is one that is buried; insulated in a manner that prevents access to the connector by a monitor probe; obstructed by equipment or piping that prevents access to the connector by a monitor probe; unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold which would allow access to connectors up to 7.6 meters (25 feet) above the ground; unable to be reached without elevating the monitoring personnel more than 2 meters above a permanent support surface or requiring the erection of scaffolding; or unable to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment. If any inaccessible or ceramic or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the leak shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 63.171 and 40 CFR 63.174(g). (40 CFR 63.174(h))

vii. For pressure relief devices in light liquid or heavy liquid service, and instrumentation systems shall be monitored within 5 calendar days by the method specified in 40 CFR 63.180(b) if evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method. If such a potential leak is repaired as required in 40 CFR 63.169(c) and (d), it is not necessary to monitor the system for leaks by the method specified in 40 CFR 63.180(b). (40 CFR 63.169(a))

1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 63.171 of this subpart. (40 CFR 63.169(c)(1))

2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. (40 CFR 63.169(c)(2))

3) For equipment identified in 40 CFR 63.169(a) that is not monitored by the method specified in 40 CFR 63.180(b), repaired shall mean that the visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated; that no bubbles are observed at potential leak sites during a leak check using soap solution; or that the system will hold a test pressure. (40 CFR 63.169(c)(3))

viii. A list of identification numbers for equipment (except connectors exempt from monitoring and recordkeeping identified in 40 CFR 63.174 and instrumentation systems) subject to the requirements of 40 CFR 63 Subpart H. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. With respect to connectors, the list shall be complete no later than the completion of the initial survey required by 40 CFR 63.174(b)(1) or (b)(2) of 40 CFR 63 Subpart H. (40 CFR 63.181(b)(1)(i))

ix. A schedule by process unit for monitoring connectors subject to the provisions of 40 CFR 63.174(a) and valves subject to the provisions of 40 CFR 63.168(d). (40 CFR 63.181(b)(1)(ii))

x. Equipment subject to the provisions of 40 CFR 63 Subpart H may be identified on a plant site plan, in log entries, or by other appropriate methods. (40 CFR 63.181(b)(1)(iii))

xi. Identification of screwed connectors subject to the requirements of 40 CFR 63.174(c)(2). Identification can be by area or grouping as long as the total number within each group or area is recorded. (40 CFR 63.181(b)(5))

xii. The following information pertaining to all pumps subject to the provisions of 40 CFR 63.163(j) and valves subject to the provisions of 40 CFR 63.168(h) and (i) shall be recorded: (40 CFR 63.181(b)(7))

1) Identification of equipment designated as unsafe to monitor, difficult to monitor, or unsafe to inspect and the plan for monitoring or inspecting this equipment. (40 CFR 63.181(b)(7)(i))

2) A list of identification numbers for the equipment that is designated as difficult to monitor, an explanation of why the equipment is difficult to monitor, and the planned schedule for monitoring this equipment. (40 CFR 63.181(b)(7)(ii))

xiii. For visual inspections of equipment subject to the provisions of 40 CFR 63 Subpart H [e.g., 40 CFR 63.163(b)(3), 40 CFR 63.163(e)(4)(i)], the owner or operator shall document that the inspection was conducted and the date of the inspection. The owner or operator shall maintain records as specified in 40 CFR 63.181(d) for leaking equipment identified in this inspection, except as provided in 40 CFR 63.181(e). These records shall be retained for 5 years. (40 CFR 63.181(c))

xiv. When each leak is detected as specified in 40 CFR 63.163 and 40 CFR 63.164; 40 CFR 63.168 and 40 CFR 63.169; and 40 CFR 63.172 through 40 CFR 63.174 of 40 CFR 63 Subpart H, the following information shall be recorded and kept for 5 years: (40 CFR 63.181(d))

1) The instrument and the equipment identification number and the operator name, initials, or identification number. (40 CFR 63.181(d)(1))

2) The date the leak was detected and the date of first attempt to repair the leak. (40 CFR 63.181(d)(2))

3) The date of successful repair of the leak. (40 CFR 63.181(d)(3))

4) Maximum instrument reading measured by Method 21 of 40 CFR part 60, Appendix A after it is successfully repaired or determined to be nonrepairable. (40 CFR 63.181(d)(4))

5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. (40 CFR 63.181(d)(5))

(a) The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure. (40 CFR 63.181(d)(5)(i))

(b) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion. (40 CFR 63.181(d)(5)(ii))

6) Dates of process unit shutdowns that occur while the equipment is unrepaired. (40 CFR 63.181(d)(6))

7) Copies of the periodic reports as specified in 40 CFR 63.182(d), if records are not maintained on a computerized database capable of generating summary reports from the records. (40 CFR 63.181(d)(9))

xv. Each owner or operator of a process unit subject to the requirements of 40 CFR 63.175 and 40 CFR 63.176 of 40 CFR 63 Subpart H shall maintain the records specified in 40 CFR 63.181(h)(1) through (h)(9) for the period of the quality improvement program for the process unit. (40 CFR 63.181(h)) (See Comment 3)

1) For owners or operators who elect to use a reasonable further progress quality improvement program, as specified in 40 CFR 63.175(d): (40 CFR 63.181(h)(1))

   (a) All data required in 40 CFR 63.175(d)(2). (40 CFR 63.181(h)(1)(i))

   (b) The percent leaking valves observed each quarter and the rolling average percent reduction observed in each quarter. (40 CFR 63.181(h)(1)(ii))

   (c) The beginning and ending dates while meeting the requirements of 40 CFR 63.175(d). (40 CFR 63.181(h)(1)(iii))

2) For owners or operators who elect to use a quality improvement program of technology review and improvement, as specified in 40 CFR 63.175(e): (40 CFR 63.181(h)(2))

   (a) All data required in 40 CFR 63.175(e)(2). (40 CFR 63.181(h)(2)(i))

   (b) The percent leaking valves observed each quarter. (40 CFR 63.181(h)(2)(ii))

   (c) Documentation of all inspections conducted under the requirements of 40 CFR 63.175(e)(4), and any recommendations for design or specification changes to reduce leak frequency. (40 CFR 63.181(h)(2)(iii))

   (d) The beginning and ending dates while meeting the requirements of 40 CFR 63.175(e). (40 CFR 63.181(h)(2)(iv))

3) For owners or operators subject to the requirements of the pump quality improvement program as specified in 40 CFR 63.176: (40 CFR 63.181(h)(3))

   (a) All data required in 40 CFR 63.176(d)(2). (40 CFR 63.181(h)(3)(i))

   (b) The rolling average percent leaking pumps. (40 CFR 63.181(h)(3)(ii))

   (c) Documentation of all inspections conducted under the requirements of 40 CFR 63.176(d)(4), and any recommendations for design or specification changes to reduce leak frequency. (40 CFR 63.181(h)(3)(iii))

   (d) The beginning and ending dates while meeting the requirements of 40 CFR 63.176(d). (40 CFR 63.181(h)(3)(iv))

4) If a leak is not repaired within 15 calendar days after discovery of the leak, the reason for the delay and the expected date of successful repair. (40 CFR 63.181(h)(4))

5) Records of all analyses required in 40 CFR 63.175(e) and 40 CFR 63.176(d) of 40 CFR 63 Subpart H. The records will include the following: (40 CFR 63.181(h)(5))

   (a) A list identifying areas associated with poorer than average performance and the associated service characteristics of the stream, the operating conditions and maintenance practices. (40 CFR 63.181(h)(5)(i))

   (b) The reasons for rejecting specific candidate superior emission performing valve or pump technology from performance trials. (40 CFR 63.181(h)(5)(ii))

   (c) The list of candidate superior emission performing valve or pump technologies, and documentation of the performance trial program items required under 40 CFR 63.175(e)(6)(iii) and 40 CFR 63.176(d)(6)(iii). (40 CFR 63.181(h)(5)(iii))

   (d) The beginning date and duration of performance trials of each candidate superior emission performing technology. (40 CFR 63.181(h)(5)(iv))

6) All records documenting the quality assurance program for valves or pumps as specified in 40 CFR 63.175(e)(7) and 40 CFR 63.176(d)(7). (40 CFR 63.181(h)(6))

7) Records indicating that all valves or pumps replaced or modified during the period of the quality improvement program are in compliance with the quality assurance requirements in 40 CFR 63.175(e)(7) and 40 CFR 63.176(d)(7). (40 CFR 63.181(h)(7))

8) Records documenting compliance with the 20 percent or greater annual replacement rate for pumps as specified in 40 CFR 63.176(d)(8). (40 CFR 63.181(h)(8))

9) Information and data to show the corporation has fewer than 100 employees, including employees providing professional and technical contracted services. (40 CFR 63.181(h)(9))

xvi. Identification, either by list, location (area or group) of equipment in organic HAP service less than 300 hours per year within a process unit subject to the provisions of 40 CFR 63 Subpart H under 40 CFR 63.160 of 40 CFR 63 Subpart H. (40 CFR 63.181(j))

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

The owner or operator shall include, at a minimum, the following information in the semi-annual reports required by the HON MACT covering the periods of October 13 through April 13 and April 14 through October 12, unless otherwise noted. (See UHON Comment 4)

a. **HAP (Non-LDAR)**

i. Except as specified under paragraphs (c)(5) and (c)(6) of this section of the federal regulation, a report containing the information in paragraphs (c)(2), (c)(3), and (c)(4) of this section of the federal regulation shall be submitted monthly no later than 60 calendar days after the end of each 6-month period. The first report shall be submitted no later than 8 months after the date the Notification of Compliance Status is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status is due. (40 CFR40 CFR 63.152(c)(1))

ii. The Company has elected to comply with the reporting requirement of (40 CFR40 CFR 63.152(c)(1)) by submitting non-LDAR HON reports concurrently with the LDAR HON reports as specified in 40 CFR 63.182(d) and which shall contain the following information at a minimum:

1) For Group 1 process vents, report the duration of periods when monitoring data is not collected for each excursion caused by insufficient monitoring data as defined in 40 CFR 63.152(c)(2)(ii)(A) of this subpart. (40 CFR 63.118(f)(2))

2) For Group 1 process vents, report the times and durations of all periods recorded under paragraph (a)(3) of this section of the federal regulation when the gas stream is diverted to the atmosphere through a bypass line. (40 CFR 63.118(f)(3))

3) For Group 1 process vents, report periods recorded under paragraph (a)(4) of this section of the federal regulation in which the seal mechanism is broken, the bypass line valve position has changed, or the key to unlock the bypass line valve was checked out. (40 CFR 63.118(f)(4))

4) Whenever a process change, as defined in 40 CFR 63.115(e), is made that causes a Group 2 process vent to become a Group 1 process vent, the owner or operator shall submit a report within 180 calendar days after the process change as specified in 40 CFR 63.151(j). The report shall include: (40 CFR 63.118(g))

(a) A description of the process change; (40 CFR 63.118(g)(1))

(b) The results of the recalculation of the flow rate, organic HAP concentration, and TRE index value required under 40 CFR 63.115(e) and recorded under 40 CFR 63.118(c), (d), or (e); and (40 CFR 63.118(g)(2))

(c) A statement that the owner or operator will comply with the provisions of 40 CFR 63.113 of this subpart for Group 1 process vents by the dates specified in 40 CFR 63 Subpart F. (40 CFR 63.118(g)(3))

5) Whenever a process change, as defined in 40 CFR 63.115(e), is made that causes a Group 2 process vent with a TRE greater than 4.0 to become a Group 2 process vent with a TRE less than 4.0, the owner or operator shall submit a report within 180 calendar days after

the process change. The report may be submitted as part of the next periodic report. The report shall include: (40 CFR 63.118(h))

(a) A description of the process change, (40 CFR 63.118(h)(1))

(b) The results of the recalculation of the TRE index value required under 40 CFR 63.115(e) and recorded under 40 CFR 63.118(c), and (40 CFR 63.118(h)(2))

(c) A statement that the owner or operator will comply with the requirements specified in 40 CFR 63.113(d). (40 CFR 63.118(h)(3))

iii. The owner or operator shall submit Periodic Reports as required by 40 CFR 63.152(c) of this subpart and shall submit as part of the Periodic Reports the information specified in paragraphs (d), (e), (f), and (g) of this section. (40 CFR 63.122(a)(4))

1) An owner or operator who elects to comply with 40 CFR 63.119(b) of this subpart by using a fixed roof and an internal floating roof or with 40 CFR 63.119(d) of this subpart by using an external floating roof converted to an internal floating roof shall submit, as part of the Periodic Report required under 40 CFR 63.152(c) of this subpart, the results of each inspection conducted in accordance with 40 CFR 63.120(a) of this subpart in which a failure is detected in the control equipment. (40 CFR 63.122(d))

2) For vessels for which annual inspections are required under 40 CFR 63.120 (a)(2)(i) or (a)(3)(ii) of this subpart, the specifications and requirements listed in paragraphs (d)(1)(i) through (d)(1)(iii) of this section apply. (40 CFR 63.122(d)(1))

(a) A failure is defined as any time in which the internal floating roof is not resting on the surface of the liquid inside the storage vessel and is not resting on the leg supports; or there is liquid on the floating roof; or the seal is detached from the internal floating roof; or there are holes, tears, or other openings in the seal or seal fabric; or there are visible gaps between the seal and the wall of the storage vessel. (40 CFR 63.122(d)(1)(i))

(b) Except as provided in paragraph (d)(1)(iii) of this section, each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made or the date the storage vessel was emptied. (40 CFR 63.122(d)(1)(ii))

(c) If an extension is utilized in accordance with 40 CFR 63.120(a)(4) of this subpart, the owner or operator shall, in the next Periodic Report, identify the vessel; include the documentation specified in 40 CFR 63.120(a)(4) of this subpart; and describe the date the storage vessel was emptied and the nature of and date the repair was made. (40 CFR 63.122(d)(1)(iii))

3) For vessels for which inspections are required under 40 CFR 63.120 (a)(2)(ii), (a)(3)(i), or (a)(3)(iii) of this subpart, the specifications and requirements listed in paragraphs (d)(2)(i) and (d)(2)(ii) of this section apply. (40 CFR 63.122(d)(2))

(a) A failure is defined as any time in which the internal floating roof has defects; or the primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal (if one has been installed) has holes, tears, or other openings in the seal or the seal fabric; or the gaskets no longer close off the liquid surface from the atmosphere; or the slotted membrane has more than 10 percent open area. (40 CFR 63.122(d)(2)(i))

(b) Each Periodic Report required under 40 CFR 63.152(c) of this subpart shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall

also describe the nature of and date the repair was made. (40 CFR 63.122(d)(2)(ii))

iv. An owner or operator who elects to comply with 40 CFR 63.119(e) of this subpart by installing a closed vent system and control device shall submit, as part of the next Periodic Report required by 40 CFR 63.152(c) of this subpart, the information specified in paragraphs (g)(1) through (g)(3) of this section of the federal regulation. (40 CFR 63.122(g))

1) As required by 40 CFR 63.120(d)(4) and 40 CFR 63.120(e)(3) of this subpart, the Periodic Report shall include the information specified in paragraphs (g)(1)(i) and (g)(1)(ii) of this section for those planned routine maintenance operations that would require the control device not to meet the requirements of 40 CFR 63.119 (e)(1) or (e)(2) of this subpart, as applicable. (40 CFR 63.122(g)(1))

(a) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6 months. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods. (40 CFR 63.122(g)(1)(i))

(b) A description of the planned routine maintenance that was performed for the control device during the previous 6 months. This description shall include the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the requirements of 40 CFR 63.119 (e)(1) or (e)(2) of this subpart, as applicable, due to planned routine maintenance. (40 CFR 63.122(g)(1)(ii))

2) If a control device other than a flare is used, the Periodic Report shall describe each occurrence when the monitored parameters were outside of the parameter ranges documented in the Notification of Compliance Status in accordance with 40 CFR 63.120(d)(3)(i) of this subpart. The description shall include the information specified in paragraphs (g)(2)(i) and (g)(2)(ii) of this section. (40 CFR 63.122(g)(2))

(a) Identification of the control device for which the measured parameters were outside of the established ranges, (40 CFR 63.122(g)(2)(i)) and

(b) Cause for the measured parameters to be outside of the established ranges. (40 CFR 63.122(g)(2)(ii))

v. Each owner or operator of a Group 1 or Group 2 transfer rack shall record, update annually, and maintain the information specified in paragraphs (f)(1) through (f)(3) of this section in a readily accessible location on site: (40 CFR 63.130(f))

vi. An analysis demonstrating the design and actual annual throughput of the transfer rack; (40 CFR 63.130(f)(1))

vii. An analysis documenting the weight-percent organic HAP's in the liquid loaded. Examples of acceptable documentation include but are not limited to analyses of the material and engineering calculations. (40 CFR 63.130(f)(2))

viii. An analysis documenting the annual rack weighted average HAP partial pressure of the transfer rack. (40 CFR 63.130(f)(3))

ix. For Group 2 transfer racks that are limited to transfer of organic HAP's with partial pressures less than 10.3 kilopascals, documentation is required of the organic HAP's (by compound) that are transferred. The rack weighted average partial pressure does not need to be calculated. (40 CFR 63.130(f)(3)(i))

x. For racks transferring one or more organic HAP's with partial pressures greater than 10.3 kilopascals, as well as one or more organic HAP's with partial pressures less than 10.3 kilopascals, a rack weighted partial pressure shall be documented. The rack weighted average

HAP partial pressure shall be weighted by the annual throughput of each chemical transferred. (40 CFR 63.130(f)(3)(ii))

1) Reports of start-up, shutdown, and malfunction required by 40 CFR 63.10(d)(5) of subpart A. The start-up, shutdown and malfunction reports may be submitted on the same schedule as the Periodic Reports required under paragraph (c) of this section instead of the schedule specified in 40 CFR 63.10(d)(5) of subpart A. (40 CFR 63.152(d)(1))

2) For storage vessels, the notifications of inspections required by 40 CFR 63.122 (h)(1) and (h)(2) of this subpart. (40 CFR 63.152(d)(2))

b. **HAP (LDAR)**

The owner or operator shall report the following HAP (LDAR) information in semi-annual Periodic Reports submitted under the conditions specified in 40 CFR 63.182(d), to the Air Pollution Control District and U.S. EPA Region 4. (See UHON Comment 4)

i. The number of valves for which leaks were detected as described in 40 CFR 63.168(b), the percent leakers, and the total number of valves monitored; (40 CFR 63.182(d)(2)(i))

ii. The number of valves for which leaks were not repaired as required in 40 CFR 63.168(f), identifying the number of those that are determined nonrepairable; (40 CFR 63.182(d)(2)(ii))

iii. The number of pumps for which leaks were detected as described in 40 CFR 63.163(b), the percent leakers, and the total number of pumps monitored; (40 CFR 63.182(d)(2)(iii))

iv. The number of pumps for which leaks were not repaired as required in 40 CFR 63.163(c); (40 CFR 63.182(d)(2)(iv))

v. The number of connectors for which leaks were detected as described in 40 CFR 63.174(a), the percent of connectors leaking, and the total number of connectors monitored; (40 CFR 63.182(d)(2)(ix))

vi. The number of connectors for which leaks were not repaired as required in 40 CFR 63.174(d), identifying the number of those that are determined nonrepairable; (40 CFR 63.182(d)(2)(xi))

vii. The facts that explain any delay of repairs and, where appropriate, why a process unit shutdown was technically infeasible. (40 CFR 63.182(d)(2)(xiii))

viii. The results of all monitoring to show compliance with 40 CFR 63.164(i), 40 CFR 63.165(a), and 40 CFR 63.172(f) conducted within the semiannual reporting period. (40 CFR 63.182(d)(2)(xiv))

ix. If applicable, the initiation of a monthly monitoring program under 40 CFR 63.168(d)(1)(i), or a quality improvement program under either 40 CFR 63.175 or 40 CFR 63.176. (40 CFR 63.182(d)(2)(xv))

x. If applicable, notification of a change in connector monitoring alternatives as described in 40 CFR 63.174(c)(1). (40 CFR 63.182(d)(2)(xvi))

xi. If applicable, the compliance option that has been selected under 40 CFR 63.172(n). (40 CFR 63.182(d)(2)(xvii))

xii. The number of each type of component monitored

xiii. The total number of each type of component

xiv. Any changes in the number of each component

HON Comments

1. Emission Units U1 Formaldehyde Production - Silver Process and U7 Formaldehyde Production - Metal Oxide Process at Hexion Specialty Chemical, formerly Borden Chemical, Inc, is subject to 40 CFR 63 Subparts A, F, G, and H according to Board Order #2142 dated August 15, 2001, Items 7, 8, and 9.

2. Momentive formerly Hexion Specialty Chemical, formerly Borden Chemical, Inc, submitted the initial notification for 40 CFR 63 Subpart A, F, G, and H (the HON) on August 31, 2001 as required by Board Order #2142, dated August 15, 2001, Item 6.

3. As long as the facility maintains its percent leaking valves at a level less than 2% as a rolling average over the two most recent monitoring periods, and its percent leaking pumps at a level less than 10% as a six-month rolling average, the facility is not required to implement a Quality Improvement Program for valves or pumps as codified at 40 CFR 63.175 and 40 CFR 63.176, respectively.

4. Momentive formerly Hexion Specialty Chemical, formerly Borden Chemical, Inc, submitted the Notification of Compliance Status for 40 CFR 63 Subpart A, F, G, and H (the HON) on October 15, 2001 as required by Board Order #2142, dated August 15, 2001, Item 10.

5. The Company has chosen to demonstrate compliance with the HON MACT requirements in lieu of the requirement of 40 CFR 60 Subpart VV, III, and RRR Per 63.110(d)(10) and 63.160(c)(1).

6. Storage vessel (E27) is equipped with an internal floating roof. Storage vessels (E34, E35, and E36) are hard piped for recovery to the air inlet of the Metal Oxide (MO) Formaldehyde process and in the event the MO process is shutdown the emissions would be hard piped for recovery to the Silver Formaldehyde process. Storage tank (E354) is equipped with a floating roof.

7.

Report Description	**Report Period**	**Due Date**
1st Semiannual for HON	October 13 through April 13	June 12
2nd Semiannual for HON	April 14 through October 12	December 11

8. Based on Company request received 6/13/2014 and 40 CFR 63.151(g) which states that, "an owner or operator may request approval to use alternatives to the continuous operating parameter monitoring and recordkeeping provisions listed in §§63.114, 63.117, and 63.118 for process vents,§§63.127, 63.129, and 63.130 for transfer operations, and §§63.143, 63.146, and 63.147 for wastewater". The monitoring and record keeping established by the Company in the initial notification of compliance received 10/15/2001, has been replaced with the conditions requested by the Company and laid out in Unit 7 of this permit concerning monitoring of the Catalytic Oxidizer including continuous recording of inlet temperature and routine checks of the catalyst bed for physical characteristics and catalyst viability established in Federal Regulations 40 CFR 63 Subparts SSSS, DDDD, and FFFF.

Appendix B : Control Device Efficiencies and Determination Methods

Unit	ID	Stack	Type	Description	Parameter	Value	Efficiency and last test date
U1	C6	S2	Boiler	Silver Plant Boiler	NA	none	Tested July 1997 @ 99.91% for Methanol and 99.98% for TOC. District accepted value is 98% due to test date.
U1	C26	S2	Scrubber	Silver Plant Packed Bed Scrubber	Flow Rate	2 gal/min	Tested 11/30/2011 @43.3% for Formaldehyde and 32.7% for Methanol and 27.9% for TVOC.
U2	C3	S9	Caustic Scrubber	PF-1 Fume Scrubber	Flow Rate	53 gal/min	Tested December 2000 @ 0.426 lb/hr for Phenols & 11/1998 @ 71.6% for TVOC
U2	C12	S50	Baghouse	A/B Flaker Area Dust Collector (F402)	Visual Integrity & ΔP	Okay & 1-5 inH_2O	95% - June 9, 2003 letter to LMAPCD
U2	C13	S51	Baghouse	A Product Collector (506A)	Visual Integrity & ΔP	Okay & 1-5 inH_2O	95% - June 9, 2003 letter to LMAPCD
U2	C14	S52	Baghouse	B Product Collector (506B)	Visual Integrity	okay	95% - June 9, 2003 letter to LMAPCD
U2	C15	S53	Baghouse	House Vacuum System Dust Collector (F-506C)	Visual Integrity	okay	95% - June 9, 2003 letter to LMAPCD
U2	C16	S54	Baghouse	A/B/C Packer Dust Collector (F-501A)	Visual Integrity	okay	95% - June 9, 2003 letter to LMAPCD
U2	C17	S55	Baghouse	Carbon Black Dust Collector (F-501B)	Visual Integrity	okay	95% - June 9, 2003 letter to LMAPCD
U2	C18	S56	Baghouse	C Crushed Resin Dust Collector (F-514C)	Visual Integrity	okay	95% - June 9, 2003 letter to LMAPCD
U2	C19	S57	Baghouse	A-B Side Packaging Area Dust Collector (F-501E)	Visual Integrity	okay	95% - June 9, 2003 letter to LMAPCD
U2	C20	S58	Baghouse	A/B Crushed Resin Dust Collector (F-514)	Visual Integrity	okay	95% - June 9, 2003 letter to LMAPCD
U2	C21	S59	Baghouse	C/D Flaker Area Dust Collector (F-515)	Visual Integrity	okay	95% - June 9, 2003 letter to LMAPCD
U2	C23	S62	Baghouse	C Packaging Area Dust Collector (F-501F)	Visual Integrity	okay	95% - June 9, 2003 letter to LMAPCD
U2	C24	S63	Baghouse	C Product Collector (F-501C)	Visual Integrity	okay	95% - June 9, 2003 letter to LMAPCD
U2	PF-1 RTO	PF-1 RTO	Recuperative	Thermal Oxidizer	Combustion Temp	1350°F on 3 hr avg	98% - not yet tested no certified guarantee
U3	C4	S110	Boiler	LRU Boiler	NA	none	98% no record of test or certified guarantee

Unit	ID	Stack	Type	Description	Parameter	Value	Efficiency and last test date
U3	C7	S118	Cat Ox	Catalytic Incinerator (LRU)	Inlet Temp	837°F inlet min & annual catalyst checks	Tested July 2002 @ Formaldehyde = 91.5%, Methanol = 99.14%, Phenol = 99.32%, TOC = 73.67%
U4	C8	S120	Baghouse	Specialty Plant Resin Crusher Dust Collector (F-500)	Visual Integrity & ΔP	Okay & 1-6 inH_2O	95% - June 9, 2003 letter to LMAPCD
U4	CDC401	S175	Baghouse	Specialty Plant Resin Crusher Dust Collector (DC-401)	Visual Integrity	okay	95% - June 9, 2003 letter to LMAPCD.
U4	SP RTO	S119	Recuperative	Specialty Plant Thermal Oxidizer	Combustion Temp	1350°F on 3 hr avg	Tested December 2010 @ capture 99.96% and destruction 90.89%, overall = 90.85%
U7	C5	S135	Cat Ox	Anguil Catalytic Incinerator	Inlet Temp	225°C inlet min daily average	Tested April 2008 @ 98.7% in HCHO mode and 99% in UFC mode
U8	C9	S140	Baghouse	PF-2 Bases Dust Collector (DC-228 G/H)	Visual Integrity	okay	95% - June 9, 2003 letter to LMAPCD
U8	C10	S141	Baghouse	PF-2 Acids Dust Collector (DC-229 G/H)	Visual Integrity	okay	95% - June 9, 2003 letter to LMAPCD
U8	C11	S142	Baghouse	PF-2 Flaker/ Packaging Dust Collector (DC-401 G/H)	Visual Integrity	okay	95% - June 9, 2003 letter to LMAPCD
U8	PF-2 RTO	PF-2 RTO	Recuperative	PF-2 Recuperative Thermal Oxidizer	Combustion Temp	1350°F on 3 hr avg	Tested April 2010 @ capture 99.36% and destruction 99.95%, overall = 99.31%
U9	WWTP RTO	WWTP RTO	Recuperative	WWTP Recuperative Thermal Oxidizer	Combustion Temp	1350°F on 3 hr avg	Certified Guarantee of 99% February 2013

1. Plant-wide the owner or operator shall retest all control devices within ten (10) years since the most recent District accepted performance test or within 180 days of the effective date of this permit if no previous test has been performed. The Company may submit within 90 days of the effective date of this permit, contingent on approval by the District, a schedule which shall at a minimum propose testing for all affected equipment within this permit cycle. Thereafter the Company shall retest each affected device at least once every 10 years. Devices of adequately similar design and filter media may be represented by a common performance test contingent upon review and approval by the District of the testing protocol. In lieu of the control efficiency testing, unless required by a Federal Regulation, the owner or operator may submit a signature guarantee from the control device manufacture stating the control device efficiency or accept a District approved assumed efficiency unless a previous stack test has resulted in a lower efficiency. Currently the affected control devices are listed in the above table.
2. For VOC destruction efficiency testing the Company shall use EPA Method 316 to measure Formaldehyde control efficiency of the oxidizers, boilers, and liquid scrubbers. The Company shall use

EPA Method 18 (Direct Interface) to measure VOC control efficiency, EPA Method 308 for Methanol in the MO plant Catalytic Oxidizer and EPA Method 18 for the Silver Plant Boiler. The Company shall use EPA Method 10 to measure Carbon Monoxide control efficiency. The Company shall use EPA Method 5 to measure Particulate Matter control efficiency. Substitution or use of any alternate test methods shall be submitted by the Company to the LMAPCD and contingent upon its approval prior to the performance test.

3. During thermal oxidizer performance testing the temperature of the combustion chamber shall be recorded at least every 15 minutes. The average value during the stack test shall be calculated and reported in the stack test report.

4. During wet scrubber performance testing the flow rate of scrubbing liquids through the scrubber shall be recorded at least every 15 minutes. The average value during the stack test shall be calculated and reported in the stack test report.

5. For the MO plant catalytic oxidizer (C5) testing the temperature before the catalyst bed shall be recorded at least every 15 minutes. The average upstream temperature shall be calculated and reported in the stack test report.

6. For the LRU catalytic oxidizer (C7) testing the temperature before the catalyst bed shall be recorded at least every 15 minutes. The average upstream temperature shall be calculated and reported in the stack test report.

7. All tests shall be performed on the on the inlet and outlet of the control devices where possible. The test shall be performed at 90% or higher of maximum capacity or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.

8. The owner or operator shall perform a capture efficiency test using EPA guidelines within 180 days after the effective date of the permit. In lieu of performing a capture efficiency test, the owner or operator may submit a reasonable estimate of capture efficiency with thorough justification subject to approval by the District.

9. The owner or operator shall submit written compliance test plans (protocol) for the control efficiency. They shall include the EPA test methods that will be used for VOC compliance testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators (e.g. pressure drop, minimum combustion chamber temperature) that will be monitored during the performance test. The compliance test plans shall be furnished to the District at least 30 days prior to the actual date of the performance test. Attached to the permit is a Protocol Checklist for the information to be submitted in the protocol.

10. The owner or operator shall be responsible for obtaining and analyzing audit samples when the EPA Reference Method is used to analyze samples to demonstrate compliance with the source's emission regulation. The audit samples shall be available for verification by the District during the onsite testing.

11. Per an EPA rule change ("Restructuring of the Stationary Source Audit Program." Federal Register 75:176 (September 13, 2010) pp 55636-55657), sources became responsible for obtaining the audit samples directly from accredited audit sample suppliers, not the regulatory agencies.

12. The owner or operator shall provide the District at least 10 days prior notice of any performance test to afford the District the opportunity to have an observer present.

13. The owner or operator shall furnish the District with a written report of the results of the performance test within 60 days following the actual date of completion of the performance test.

14. The owner or operator shall demonstrate compliance with the opacity limit by conducting a test in accordance with Method 9 of 40 CFR 60 Appendix A at the same time as the PM performance test. The duration of the Method 9 performance test shall be 3 hours (30 6-minute averages).

Appendix C : Protocol Checklist for a Performance Test

A completed protocol should include the following information:

- ☐ 1. Facility name, location, and ID #;
- ☐ 2. Responsible Official and environmental contact names;
- ☐ 3. Permit numbers that are requiring the test to be conducted;
- ☐ 4. Test methods to be used (i.e. EPA Method 1, 2, 3, 4, and 5);
- ☐ 5. Alternative test methods or description of modifications to the test methods to be used;
- ☐ 6. Purpose of the test including equipment and pollutant to be tested; the purpose may be described in the permit that requires the test to be conducted or may be to show compliance with a federal regulation or emission standard;
- ☐ 7. Tentative test dates (These may change but the District will need final notice at least 10 days in advance of the actual test dates in order to arrange for observation.);
- ☐ 8. Maximum rated production capacity of the system;
- ☐ 9. Production-rate goal planned during the performance test for demonstration of compliance (if appropriate, based on limits);
- ☐ 10.Method to be used for determining rate of production during the performance test;
- ☐ 11. Method to be used for determining rate of production during subsequent operations of the process equipment to demonstrate compliance;
- ☐ 12. Description of normal operation cycles;
- ☐ 13. Discussion of operating conditions that tend to cause worse case emissions; it is especially important to clarify this if worst case emissions do not come from the maximum production rate;
- ☐ 14. Process flow diagram;
- ☐ 15. The type and manufacturer of the control equipment, if any;
- ☐ 16. The control equipment (baghouse, scrubber, condenser, etc.) parameter to be monitored and recorded during the performance test. Note that this data will be used to ensure representative operation during subsequent operations. These parameters can include pressure drops, flow rates, pH, and temperature. The values achieved during the test may be required during subsequent operations to describe what pressure drops, etcetera, are indicative of good operating performance; and
- ☐ 17. How quality assurance and accuracy of the data will be maintained, including;
    - Sample identification and chain-of-custody procedures
    - If audit samples are required for this test method, audit sample provider and number of audit samples to be used
- ☐ 18. Pipe, duct, stack, or flue diameter to be tested;
- ☐ 19. Distances from the testing sample ports to the nearest upstream and downstream flow disturbances such as bends, valves, constrictions, expansions, and exit points for outlet and additionally for inlet;
- ☐ 20. Determine number of traverse points to be tested for outlet and additionally for inlet if required using Appendix A-1 to 40 CFR Part 60;
    - Method 1 if stack diameter is >12"
    - Method 1a if stack diameter is greater than or equal to 4" and less than 12"
    - Alternate method of determination for <4"
    - If a sample location at least two stack or duct diameters downstream and half a diameter upstream from any flow disturbance is not available then an alternative procedure is available for determining the acceptability of a measurement location. This procedure described in Method 1, Section 11.5 allows for the determination of gas flow angles at the sampling points and comparison of the measured results with acceptability criteria.
- ☐ 21. The Stack Test Review fee shall be submitted with each stack test protocol.

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